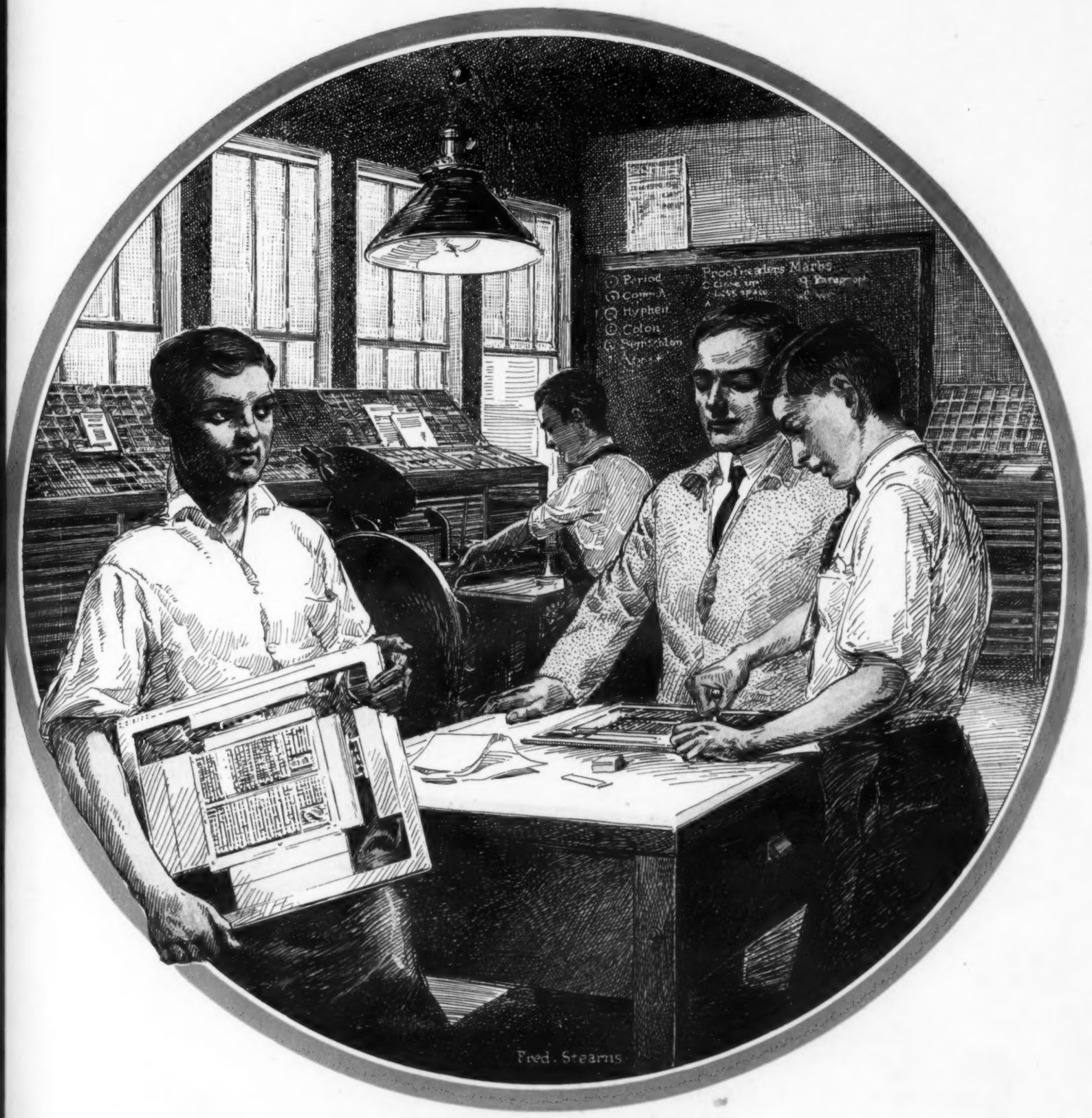
THE AMERICAN
School Board Journal

A PERIODICAL OF SCHOOL ADMINISTRATION



AUGUST, 1926

The Bruce Publishing Company
Milwaukee, Wis.

This is the William P. Bancroft School at Wilmington, Del., in which are installed sixty-three VOGEL PATENTED No. 9 school closets.

These closets are made to stand the rough usage of the school water closet.

- Economical in the use of water.
- Seldom require repairs.
- Easy of access when repairs are necessary.
- The simplest and most durable automatic water closet.
- Many Thousands in use.

Sold by Wholesalers of Plumbing Supplies Everywhere

JOSEPH A. VOGEL CO.

Wilmington, Delaware **St. Louis, Missouri**

JOHNSON DUAL THERMOSTAT TEMPERATURE CONTROL

Used rooms controlled at 70°
Unused rooms at 50°
or lower if desired

REALIZE the importance as well as the ingenuity of The DUAL THERMOSTAT now in The Johnson System of Temperature and Humidity Control: the greatest advancement in heat regulation since Johnson's Pneumatic Thermostat invention in 1895.

Operation of single switch by school principal or janitor turns off or down the heat in all rooms vacated for the day, but leaves the heat on in those rooms to be used at night: And next morning, the same switch turns on the heat for all the rooms in the building for the day.

The economy, convenience and certainty obtained are marvelous. Write now for full explanatory details—or have one of our engineers call with working model of DUAL THERMOSTAT to demonstrate.

JOHNSON SERVICE COMPANY

Factory and Main Office: MILWAUKEE, WIS.

AUTOMATIC TEMPERATURE REGULATION SINCE 1885
TWENTY-NINE BRANCHES UNITED STATES AND CANADA

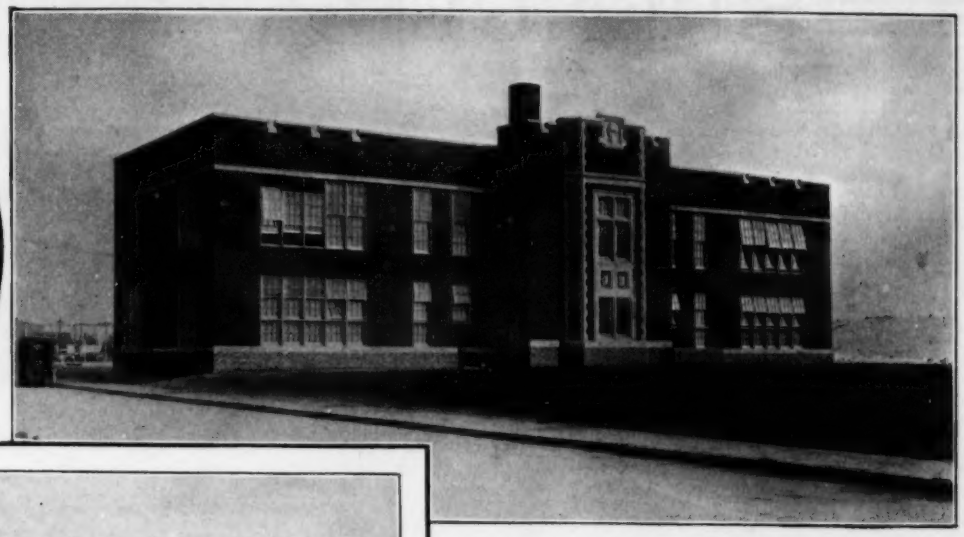
JOHNSON
SYSTEM OF TEMPERATURE AND HUMIDITY CONTROL

JSC

Johnson Dual Thermostat Improvement can readily be added to Johnson Systems of Temperature and Humidity Control already installed, and at no great expense.

These Schools Have It.....

Public School 130,
Auburndale, N. Y.
Public School 35,
Brooklyn, N. Y.
Sterling-Morton School,
Cicero, Ill.
St. Mel's School,
Chicago, Ill.
Theology Building,
Chicago University
School Addition,
Barrington, Ill.
Deerfield-Shields Twp.
High School,
Highland Park, Ill.
High School,
Cleveland Heights, Ohio
Boulevard School, and
Grade School "E,"
Shaker Heights, Ohio
Upson School,
Euclid Village, Ohio
Miller School,
Salina School,
Ford School,
Thayer School,
Springwell, Mich.
Washington School,
Cudahy, Wis.
High School,
Riverside, Ill.
Garden Village School,
Breitung, Mich.
Holy Angel School,
St. Cloud, Minn.
High School,
Kankakee, Ill.
St. John's School,
Canton, Ohio
High School,
West Chicago, Ill.
Opportunity School,
Denver University Stadium,
Denver, Colo.
Grade School,
Garfield Heights, Ohio
High School,
Greensburg, Pa.
Washington School,
Altoona, Pa.
Kingsford Heights School,
Iron Mountain, Mich.
High School,
Eau Claire, Wis.
Sacred Heart School,
St. Paul, Minn.
St. Thomas School,
Minneapolis, Minn.
High School,
Winona, Minn.
Grade School,
Kerkhoven, Minn.
Senior High School,
Marquette, Mich.
High School,
Cudahy, Wis.
Anson Junior High School,
High School,
Marshalltown, Iowa
Ahrens Trade School,
Louisville, Ky.
Ardsley School,
Ardsley, N. Y.
Lincoln Junior High School,
Rockford, Ill.
Grade School,
Forest Park, Ill.
High School,
Ellwood City, Pa.
Taylor Allderdice
High School,
Pittsburgh, Pa.
High School,
South Euclid, Ohio
Grade School,
Berwyn, Ill.
East Side Junior
High School,
Terre Haute, Ind.
School No. 1,
Edina Mills, Minn.
Grade School,
Libertyville, Ill.
Vocational and
Recreational School,
Oshkosh, Wis.



Pulaski School, Gary, Indiana. Joe Wildermuth, Architect. One 8300 Pacific Smokeless Boiler installed by Burke Bros. Plumbing & Hardware Co.

Forty-Fifth Avenue School, 45th and Madison Street, Gary, Indiana. Joe Wildermuth, Architect. Burke Bros. Plumbing and Hardware Co., Heating Contractors. One 8300 Pacific Smokeless Boiler installed.

Gary (Indiana)

11 Pacific Heated Schools

THE public schools of Gary measure up to the high standards which have made this city famous for its civic planning and improvements. In Gary schools Pacific boilers are being used as standard boiler equipment.

Pacific Smokeless Boilers, the type used in Gary schools, will not violate the most rigid smoke ordinance. Non-smoking combustion is completed in the firebox by means of patented features built into the boiler at the factory. When a good grade of "mine-run" bituminous coal is properly fired, there's no smoke—that is guaranteed.

Pacific Smokeless Boilers attain remarkably high efficiency. They embody three Pacific construction features—greater direct heating surface, larger combustion space, longer fire travel—which have established Pacific leadership in heating school buildings everywhere. Also built in direct draft and down draft types, for burning hard or soft coal, oil or gas.

Write today for catalog and complete information.

GENERAL BOILERS COMPANY, *Waukegan, Illinois*

BRANCH OFFICES IN PRINCIPAL CITIES

STEEL HEATING BOILERS · PACIFIC · WAUKEGAN ILLINOIS

PACIFIC

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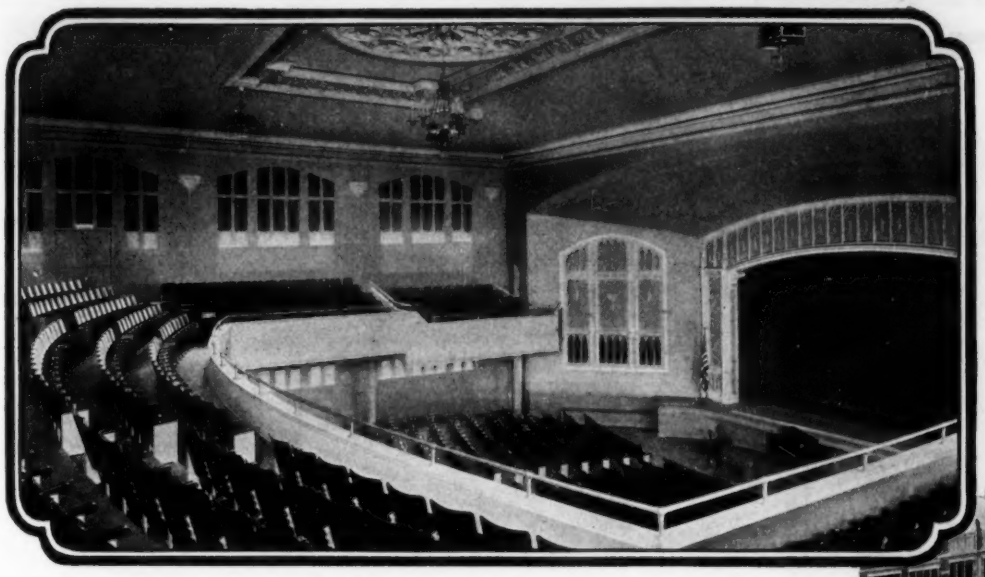
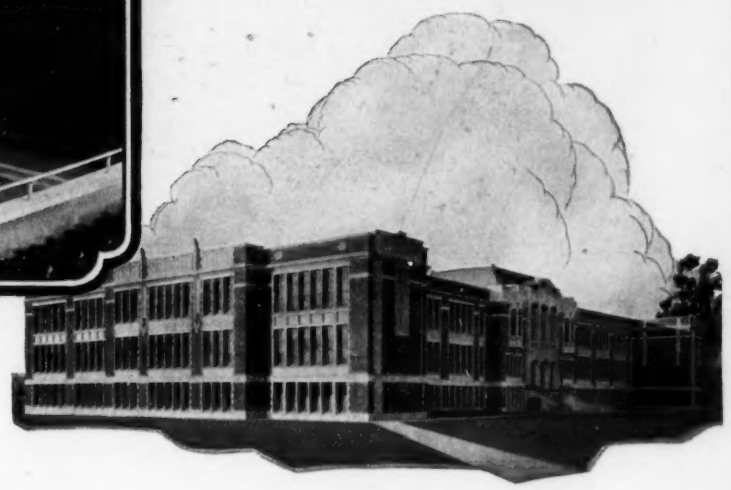


At Left—With two Columbia Damasko Heavy Duty Shades at every window perfect control of daytime lighting has become a simple matter in the spacious auditorium of the Pomona High School.

Below—Pomona High School, Pomona, Calif. Robert H. Orr, Architect; H. M. Hanawalt, General Contractor. 1516 Columbia Damasko Heavy Duty Shades on Columbia Wood Rollers.



An unfilled Cambric Shade Cloth for heavy duty service in schools

Practically everybody handles window shades carelessly and recklessly. The rule is: yank them down and snap them up to the ceiling—constant rough treatment that only window shades with constitutions of iron can stand. Shades that must be marked "Handle with Care" aren't very suitable for schools.

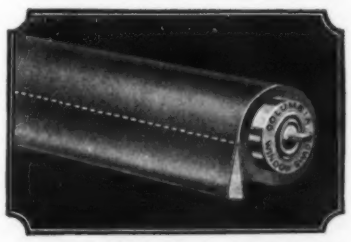
Since hard usage is inevitable, save yourself the trouble and expense of frequent replacements by specifying *Columbia* Shades and Rollers.

For school use, we manufacture and recommend Damasko Heavy Duty unfilled cambric shade cloth. It is guaranteed not to peel or crack—or show pin holes. Its closely woven fabric is strong, firm, fine-textured—and it is durable to the *n*th degree.

The long wear rendered by these shades means *economy*. All over the country, we can point to school installations where the annual replacement costs have been cut down to a minimum—as low as *twenty-five cents for every one hundred dollars of original cost.*

And the good looks of these unfilled cambric shades match their durability. A wide variety of attractive colors to harmonize with both interior and exterior of any building, and to subdue the dazzling daylight and fill the classroom with that mellow glow so essential to restful study.

Let us send you samples of *Columbia* Shades and Rollers—together with Standard Specifications to guide you in purchasing and installing window shades. All without obligation to you, of course. And the coupon will bring them to you promptly.



30% to 40% longer life, a third greater lifting power and silent operation are among the advantages made possible by the exclusive features embodied in the Columbia Roller. These features include an extra strong spring, rustproof ends and nickeled fixtures.

The *Columbia* Mills, Inc.
225 Fifth Avenue, New York

Boston Chicago Cincinnati Cleveland Detroit Pittsburgh
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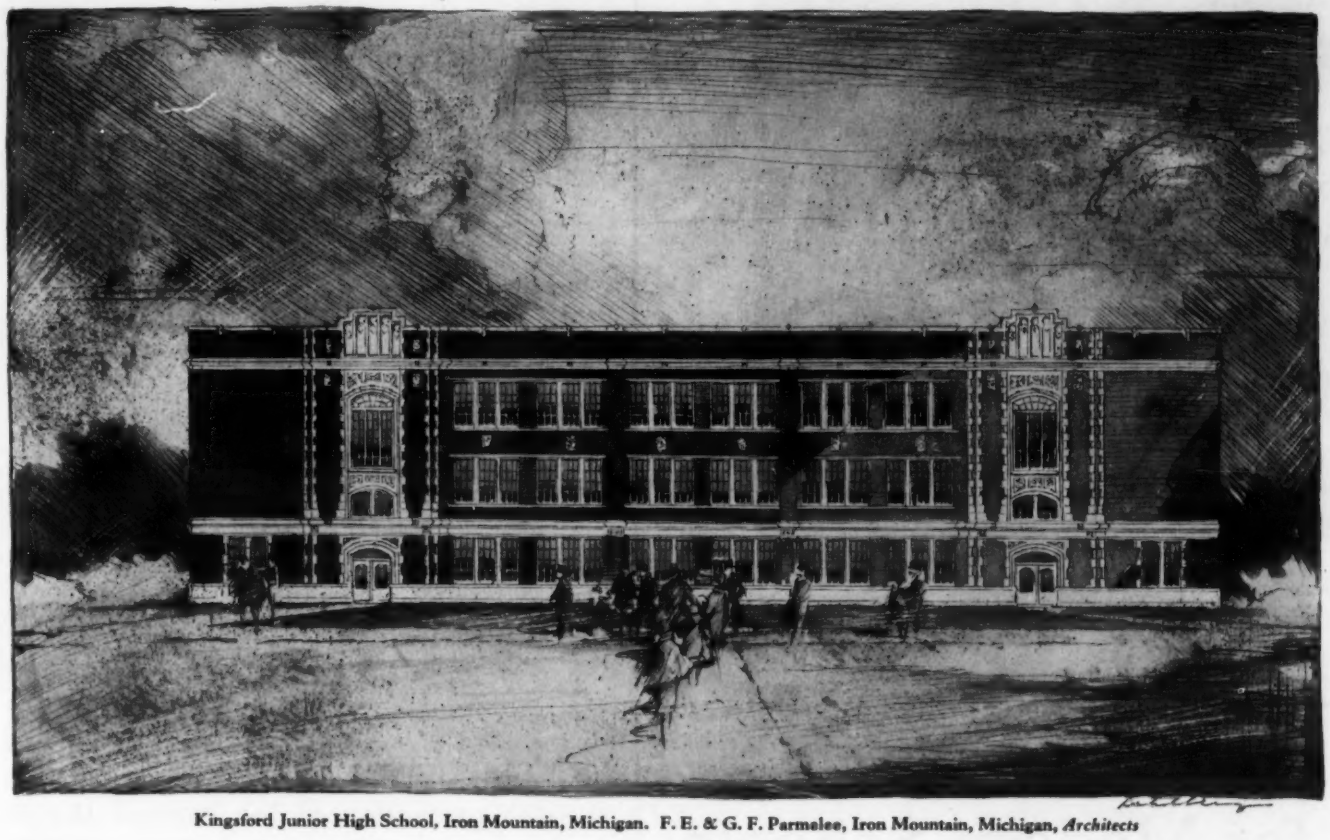
St. Louis San Francisco Minneapolis Los Angeles

You can save time

and insure shade satisfaction by using the Standard Specification for Window Shades which we'll gladly send on request. A specimen roller and samples of *Columbia* Cloth are sent with the specification. Just fill in coupon and mail to The *Columbia* Mills, Inc., 225 Fifth Avenue, New York.

Name .....
Street .....
City S-8-26

Columbia GUARANTEED WINDOW SHADES and ROLLERS



Kingsford Junior High School, Iron Mountain, Michigan. F. E. & G. F. Parmelee, Iron Mountain, Michigan, *Architects*

The warm, healthful, fresh air of summer—*on even the coldest days!*

The Univent makes these school children happy and healthy

UNIVENT (TRADE MARK)

VENTILATION

Brighter, more energetic children—healthier, happier teachers—higher scholastic standards—more enthusiastic parents—your own deep satisfaction in the knowledge that you are helping to build better health and education—these are some of the results of Univent ventilation.

This original yet exhaustively tested system makes possible an ideal condition—it brings to the schoolroom during winter the warm airy freshness of June. The Univent draws the air directly from outdoors, cleans it thoroughly, warms it to a comfortable temperature, and distributes it gently yet evenly throughout the entire room—without draft.

For many progressive schools throughout the country the Univent has solved completely the problem of scientific ventilation. You will learn some interesting and important facts in the book "Univent Ventilation." We will gladly send it to you if you write us.

Manufactured only by

THE HERMAN NELSON CORPORATION *Moline, Ill.*

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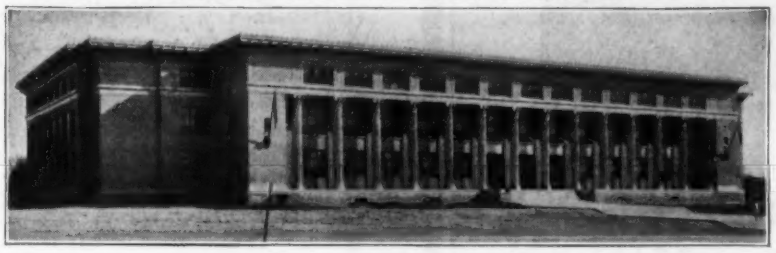
Tucson's HEALTH COUNCIL* *decided in favor of* CHILD HEALTH *and* MENTAL ALERTNESS

Tucson, Arizona, High School. Lyman and Place, Tucson, Architects. Elliot Lee Ellingwood, Los Angeles, Heating Engineer



THIS impressively beautiful school of Tucson is a highly efficient educational plant. School board and architect decided the school should induce mental alertness as well as inspire it.

Fresh air—washed, warmed, humidified—supplied constantly to every pupil in every room, keeps absenteeism from sickness at a minimum and does away with dullness among the pupils.

Under the forced ventilation by fans in the basement, the condition maintained in the rooms, in regard to temperature, humidity, distribution, motion, odors, CO_2, dust and bacteria is 96% as perfect as that of a perfect day in June.

This healthful, stimulating condition is gained through the use of The American System—the unit system of Heat with Ventilation. The American System is low in both first and operating costs. No other furnishes an adequate amount of fresh, warmed, humidified air for the same money.

No fuel is wasted and any may be burned. Only as many units as are required for comfort need be fired. Asbesto-Steel casings conserve 25% more heat than do brick casings.

There are no boilers, pipes and radiators to freeze. The cast iron construction does not rust and is many times as durable, under fire, as steel. For forty years one company, through its engineers and its authorized agents, has installed and guaranteed The American System. Write to our nearest representative or direct to us. Get all the facts about The American System clearly before your Health Council. Decide for Child Health and Mental Alertness. Write today.

Memo to* ALL *Architects!

While this advertisement features schools, THE AMERICAN SYSTEM is also ideal for any building where fresh, warmed, humidified air is needed in ample quantities at reasonable costs (Schools, Theatres, Churches, Factories, Auditoriums, Public Garages, etc.). Write us for specific facts and call on our engineering department for technical data or actual help in solving your heating and ventilating problems.

The* HEALTH COUNCIL

Because—in the building of every modern school—health, as well as mental efficiency, of many generations of school children, depend on the decisions of this small group of public spirited citizens (School Board members, Superintendent, Architect)—we refer to them here as "THE HEALTH COUNCIL."

The American System *of* Heat *with* Ventilation

Equipment manufactured and guaranteed by

The American Foundry and Furnace Co., Bloomington, Ill.

Engineering and installations complete by

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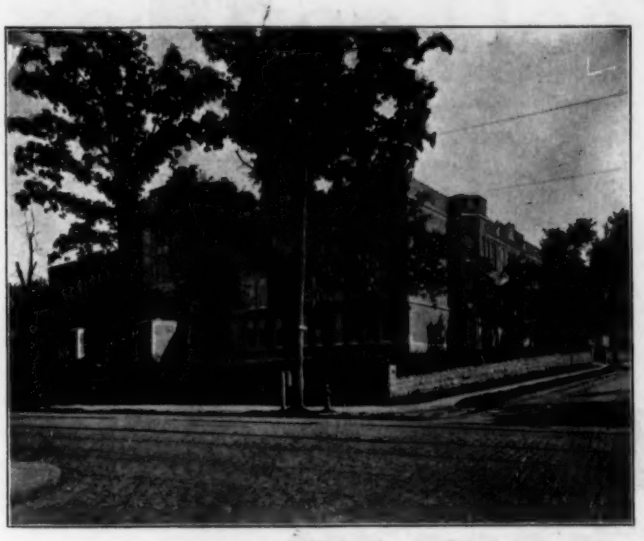
EAST JUNIOR HIGH SCHOOL
Lansing, Michigan
Floored with Maple



SENIOR HIGH SCHOOL
Roanoke, Virginia
Floored with Maple

Where feet will shuffle *and* scuff *and* scrape—

what flooring will you use?

In few places must floors be chosen with greater care than in the modern school. Will the constant pounding and friction of thousands of feet in rooms, corridors and entrances bring early deterioration or will the floors remain permanently smooth and even? Upon the choice of flooring material the answer depends.

Modern schools are using Maple floors because Maple, above all other woods, can stand harsh usage and long wear. It is so tough-fibred and tight-grained that friction merely makes it smoother with time. Maple actually outwears stone!

Like its kindred woods, Beech and Birch, Maple will not splinter, sliver or develop ridges. Its smooth, hard surface offers no lodging places for dust, dirt and germs. Maple is remarkably easy to keep clean and sanitary. It is a comfortable, healthful floor on which to stand. Maple, moreover, affords easy installation and firm anchorage for desks and equipment.

Before you adopt any flooring, learn the full facts about Maple, Beech and Birch. Talk with your architect about them. Write us for information.

Let our Service and Research Department assist you with your flooring problems. Write us.

MAPLE FLOORING MANUFACTURERS ASSN.
1061 Stock Exchange Building, *Chicago*

Guaranteed Floorings

The letters **M F M A** on Maple, Beech or Birch flooring signify that the flooring is standardized and guaranteed by the Maple Flooring Manufacturers Association, whose members must attain and maintain the highest standards of manufacture and adhere to manufacturing and grading rules which economically conserve every particle of these remarkable woods. This trade mark is for your protection. Look for it on the flooring you use.

MFMA

Floor *with* Maple
Beech *or* Birch

Put these in~ Keep these out

It doesn't make a particle of difference whether your school is as new as this morning's newspaper or as old as the Bank of England—

You don't have to tolerate cold floors and rattling windows—you don't have to be annoyed by bothersome outside noises—you don't have to put up with dust-laden walls and window sills—you don't have to pay high fuel bills!

Not in these days of Monarch Metal Weather Strips!

Monarch Strips will bring you *permanent* relief from all these unpleasant annoyances the minute they are installed—as long as they are on your windows and doors—for only a modest investment.

That sounds almost too good to be true. But listen to this from W. S. Robertson, clerk of the Argyle, Minn., Board of Education:

> "We had considerable trouble heating two northwest rooms in the Argyle High School until your man came along and suggested that we try Monarch Strips on them. We had this done—with the best possible results. Since then we have had the whole building Monarch-stripped and calked.
> "Our board heartily recommends Monarch Strips, feeling that the first cost is the only cost, and that the saving in fuel continues from year to year."

HIGH FUEL COSTS

COLD FLOORS

RATTLING WINDOWS

OUTSIDE NOISES

Monarch Metal Weather Strips are not only recommended by school authorities, architects, heating engineers and contractors, but are installed by specially trained mechanics and backed by a double guarantee. All the facts about them are told in the

Interesting FREE Booklet

we will gladly send you on request. No obligation, of course. But we will appreciate it if you will mention this magazine.

MONARCH METAL PRODUCTS CO.
4930 Penrose St., St. Louis, Mo.
Manufacturers of Monarch Metal Weather Strips for Wood Windows and Doors
Representatives in All Principal Cities

MONARCH METAL WEATHER STRIPS

A SHADE IS ONLY AS GOOD AS ITS ROLLER

You can reason with a bad pupil but not with a bad window shade

As much of a teacher's energy can be used up on a bad-acting window shade as on a bad-acting pupil.

Why experiment with shades? To make sure of perfect service simply specify that all shades be of Hartshorn manufacture. Be particularly sure that every shade is mounted on a genuine Hartshorn roller.

You may be told that other rollers are just as good as the Hartshorn. But remember this: Stewart Hartshorn in 1864 invented the window shade as it is known today. Hartshorn Rollers contain his mechanism. For 60 years it has proved its superiority.

Maps and charts are expensive — mount them on Hartshorn rollers.

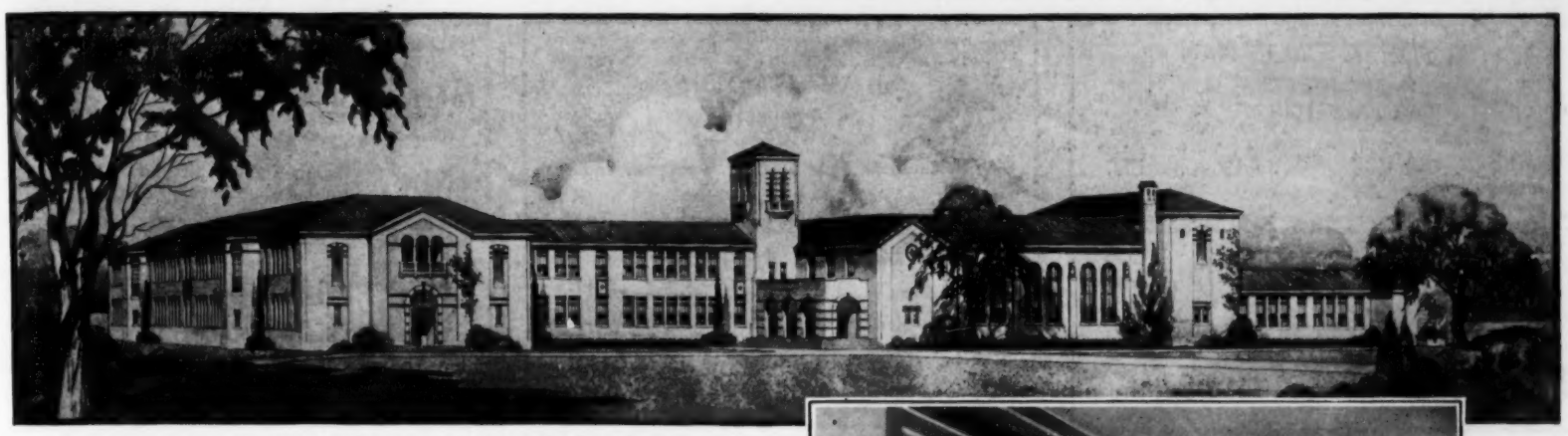
For window shades that will meet your needs exactly, specify Hartshorn's Oswego Tinted Cambric Shade Cloth mounted on Hartshorn Rollers with No. 86 or No. 87 double brackets.

WRITE FOR NAME of dealer through whom you may secure Hartshorn shade products and for samples of colors: Sage, Linen, Putty, Dust, Dill, in Tinted Cambric especially adapted for school use.

Hartshorn
SHADE PRODUCTS
Established 1860

STEWART HARTSHORN CO., 250 FIFTH AVE., NEW YORK CITY

Awning Type Windows for Schools and Hospitals Excel for Health



ROOSEVELT JUNIOR HIGH SCHOOL, SAN JOSE, CALIFORNIA.
W. H. Weeks, Architect.
Donovan Universal Windows, Awning Type.

Read this endorsement of a recent installation of "Donovan" Universal Windows by Mr. Walter L. Bachrodt, Superintendent of Schools, San Jose, California.

November 17, 1925.

Universal Window Company.
1916 Broadway,
Oakland, California.

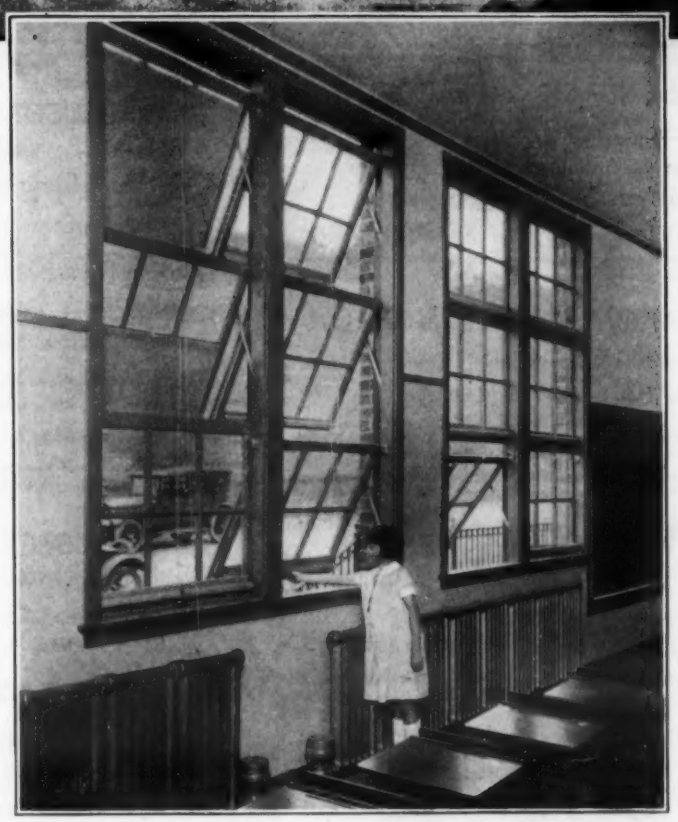
Gentlemen -

We have just completed our new Theodore Roosevelt Junior High School in which we have a complete installation of your Donovan Universal Window. We have attempted to put into this building the finest of all mechanical equipment, and let me assure you that your window is going to rank with all the rest of our equipment. The simplicity of operation, the ease of manipulation, and the fact that you have placed your handle in such a position that we can fit a window shade to the window means much to us. However, the big point is this -- we have a mechanical window that works. Teachers and junior high school students operate your window without difficulty; consequently we are getting something that actually does the work as advertised.

In our Woodrow Wilson Junior High School we did not install your window, but if we were to repeat our specifications, we certainly would insist upon the Donovan Universal Window.

Sincerely yours,
Walter L Bachrodt
Superintendent of Schools.

WLB:IL



Lower sash controls operation of all sash

NO WINDOW POLE REQUIRED.

"Donovan" — Universal Windows of the Awning Type in either wood or steel meet the practical, hygienic and architectural requirements of every modern school.

UNIVERSAL WINDOW COMPANY
General Sales Office: — 1916 Broadway
OAKLAND, CALIFORNIA

Agents in all principal Cities of the United States

Information about the Truscon Donovan Awning Type Steel Windows may be secured from the Truscon Steel Co., Youngstown, Ohio

DONOVAN UNIVERSAL WINDOWS
AWNING TYPE

UNIVERSAL WINDOW COMPANY
1916 Broadway, Oakland, California.

Send me complete literature on Donovan Universal Windows, Awning Type for Schools and Hospitals.

Name.....

Address.....

A.S.B.J. 8-26

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WILL MAKE SURVEY OF YOUR NEEDS
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Inventors of the "UNITE-ABLE" System of School Planning and Construction

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A Quarter Century in School-house Planning and Construction
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School Building Specialists
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Special attention given to school planning

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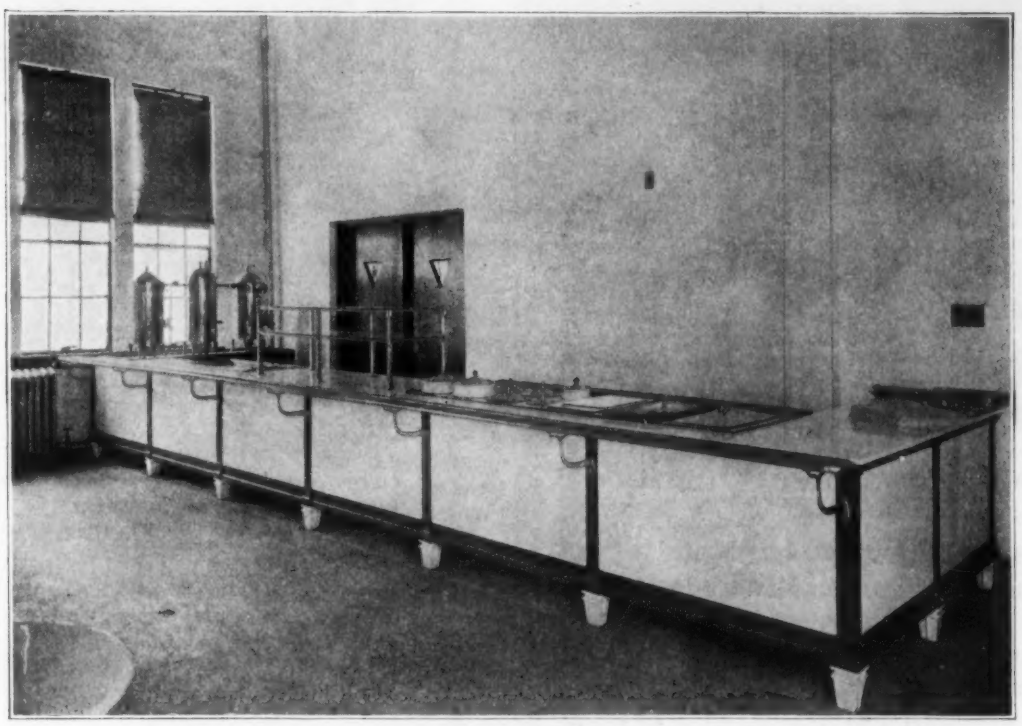

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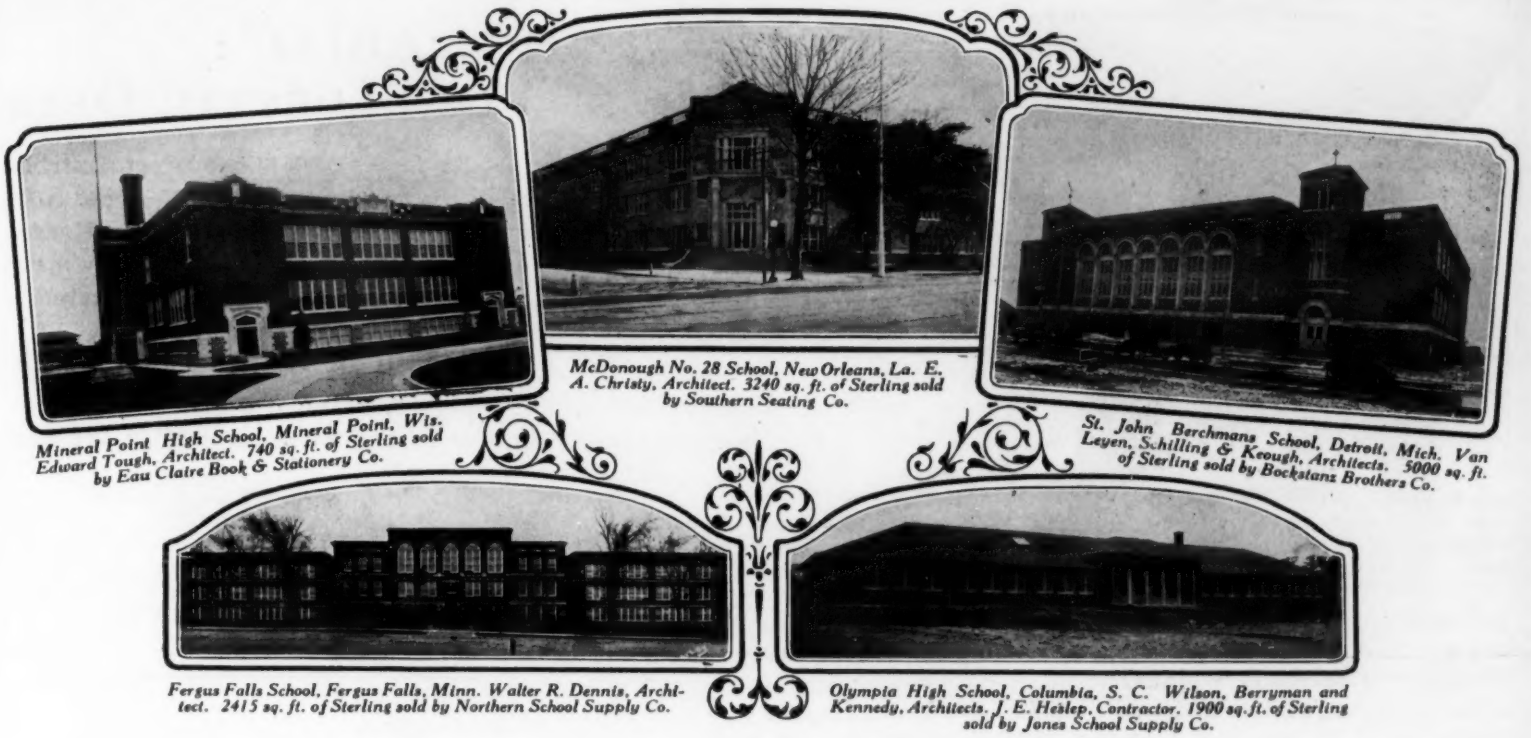

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Fergus Falls School, Fergus Falls, Minn. Walter R. Dennis, Architect. 2415 sq. ft. of Sterling sold by Northern School Supply Co.

Olympia High School, Columbia, S. C. Wilson, Berryman and Kennedy, Architects. J. E. Heslep, Contractor. 1900 sq. ft. of Sterling sold by Jones School Supply Co.

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School Districts prefer this permanent blackboard

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Back slats adjustable; Tilt of top adjustable.

Nos. 1 and 2—$4.95; Nos. 3 and 4—$4.80; Nos. 5 and 6—$4.65.

Dovetailed hardwood drawer $1.50; Swinging flush top ink well 15c. Vertical adjustment for top 50c extra.

The greatest announcement during this school generation. Over 20,000 sold to Detroit during past five years. Over 10,000 in Kansas City; 7,000 in Des Moines. More than 50,000 shipped by us during 1925 to many old customers and to 289 new customers.

Send for new illustrated catalogue.

The Columbia made the first steel frame school desk over twenty years ago—others followed—Ten years ago the Columbia made the first steel frame chair desk—others may follow, but it takes time to test out and perfect a new desk.

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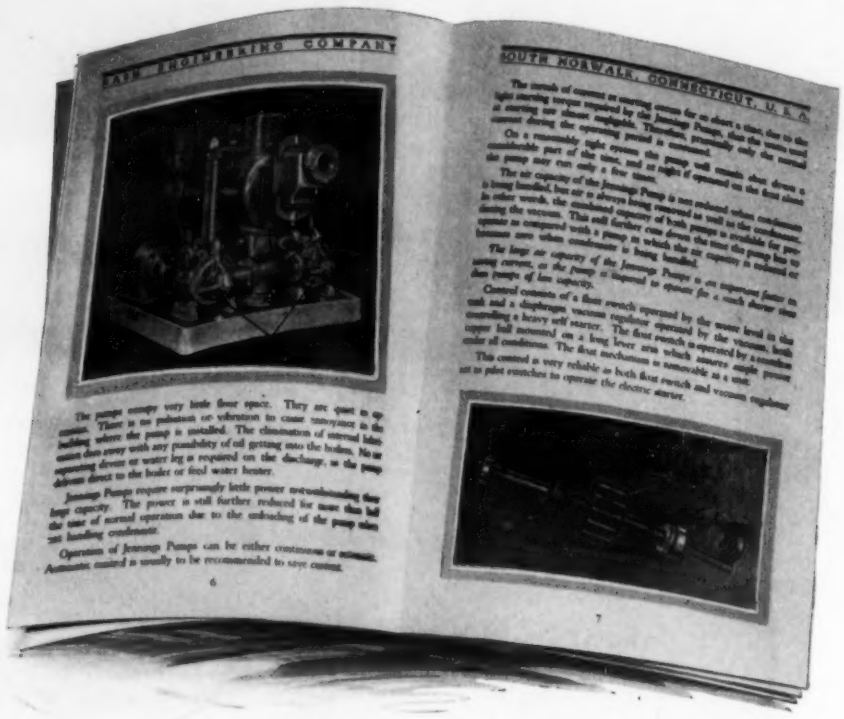
MOORE BROTHERS ~ PROPRIETORS
314-344 WEST 17TH ST. INDIANAPOLIS

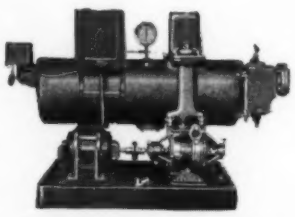
In this desk are incorporated the 24 good points of a school desk as established by a committee of over a score of leading educators whose report was set out in full in the American School Board Journal of July, 1924, a reprint of which we shall be pleased to mail you.



Send For This Heating Pump Bulletin

Perhaps you are now thinking of putting in a new steam heating system this fall. Or of overhauling an existing one. If so, consider well the make of heating pump you choose. For upon the selection of the correct pump will depend, in large part, the success of the heating plant as a whole.

What you should insist on is a pump that brings the steam to every room in the building. One that supplies every radiator with its share of the heat. A pump that enables you to start heat up quickly in the morning, even in zero weather. That provides the necessary flexibility, making the heat supplied always equal to the heat required.



Motor-driven Jennings Return Line Vacuum Heating Pump, in standard sizes up to 300,000 sq. ft. equivalent direct radiation.

Our new bulletin, just off the press, will help you in choosing the right pump for your requirements.

Write today for a copy. Sent free on request.

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THE AMERICAN
School Board Journal
A Periodical of School Administration

Frank Bruce, Publisher
John J. Krill, Business Manager
Frank O. Dunning, Jr., Eastern Manager

Published on the first day of the month by
THE BRUCE PUBLISHING COMPANY
354 Milwaukee St., Milwaukee, Wis.

Eastern Advertising Office:
50 Church St.,
New York, N. Y.

Volume 73 August, 1926 No. 2

LAST MINUTE PURCHASES

The flood of orders for school supplies and equipment will no doubt be at its height during the month of August. The school officials who are concerned in a successful fall opening of the school plant have either forwarded their orders to the distributors or are ready to do so now.

The manufacturers and distributors, realizing that they are engaged in a business which in large part is seasonal, are reasonably equipped to rush the orders that come to them. Congestion, however, is bound to follow if the greater number of orders are delayed until the last minute.

The orders, therefore, as far as they emanate from school administrative offices, should be expedited if efficient service is expected. The advertising columns of the SCHOOL BOARD JOURNAL afford information on every commodity required in and about the schoolhouse and give the names of reliable concerns. Only reliable manufacturers and distributors are permitted to appear in these columns.

If your orders have not been formulated and submitted, get at your task at once. The execution of your orders requires time for selection, packing, and shipping, if satisfactory service is expected in September.

IN SEPTEMBER

The final section of Mr. Ramsey's article on School Maintenance will appear in the September issue of the JOURNAL. It will be devoted to the problems of purchasing for the school maintenance department.

CHANGES OF ADDRESS

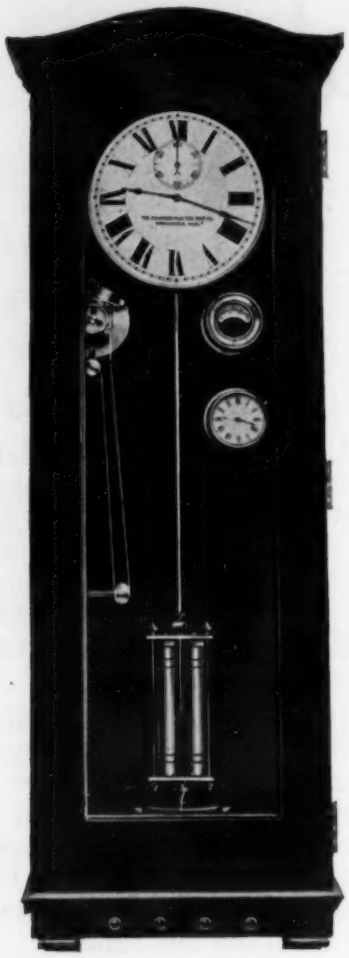
Notices of summer and fall changes of address should include the old, as well as the new address.

Subscriptions—In the United States and possessions, $3.00 per year. In Canada $3.50. In foreign countries $4.00. Single copies, not more than three months old, 35 cents; more than three months old, 50 cents. Sample copies, 35 cents. No orders accepted for volumes dating back more than five years. Back copies more than one year old, not available.

Discontinuances—Notice of discontinuance of subscriptions must reach the Publication office in Milwaukee, at least fifteen days before date of expiration. Notice of changes of address should invariably include the old as well as the new address. Complaints of non-receipt of subscribers' copies cannot be honored unless made within fifteen days after date of issue.

Editorial Material—Manuscripts and photographs bearing on school administration, superintendence, school architecture and related topics are solicited and will be paid for upon publication. Contributions should be mailed to Milwaukee direct, and should be accompanied by stamps for return, if unavailable. Open letters to the editor must in all cases contain the name and address of the writer, not necessarily for publication, but as evidence of good faith.

NOTE: We are repeating this advertisement due to an error in transposing the Architects' names in our July advertisement.



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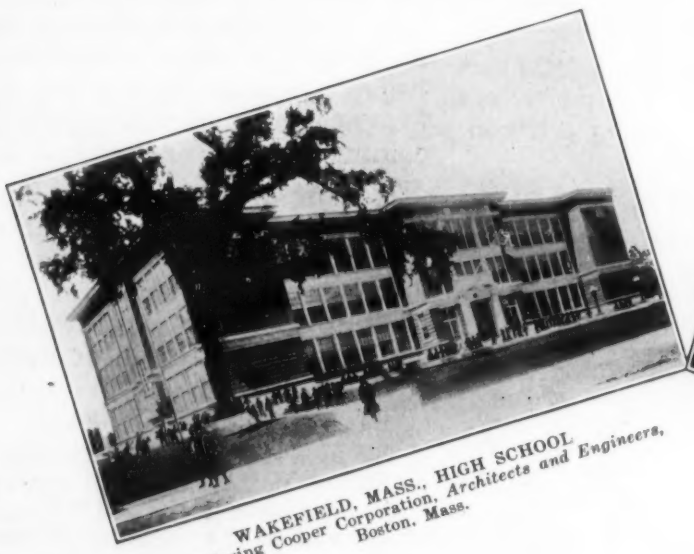
The Standard system gives your schools reliable, uniform, electric time service with automatic control of the program schedule—a simple effective fire alarm and a convenient telephone service—all efficiently designed to operate from a single battery automatically charged.

This combination equipment makes an ideal system for schools and has met with wide favor and adoption by Architects and School Authorities.

Ask a Standard representative for further information or estimates for your building.

Two New Boston Suburban Schools Equipped With "STANDARD" Electric Time Service



WAKEFIELD, MASS., HIGH SCHOOL
Frank Irving Cooper Corporation, *Architects and Engineers,*
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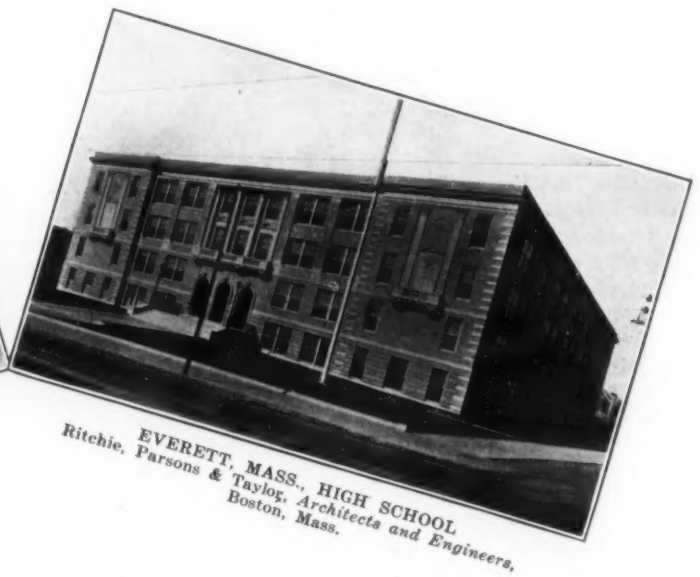

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"Makes Every Minute Count"

THE AMERICAN

School Board Journal

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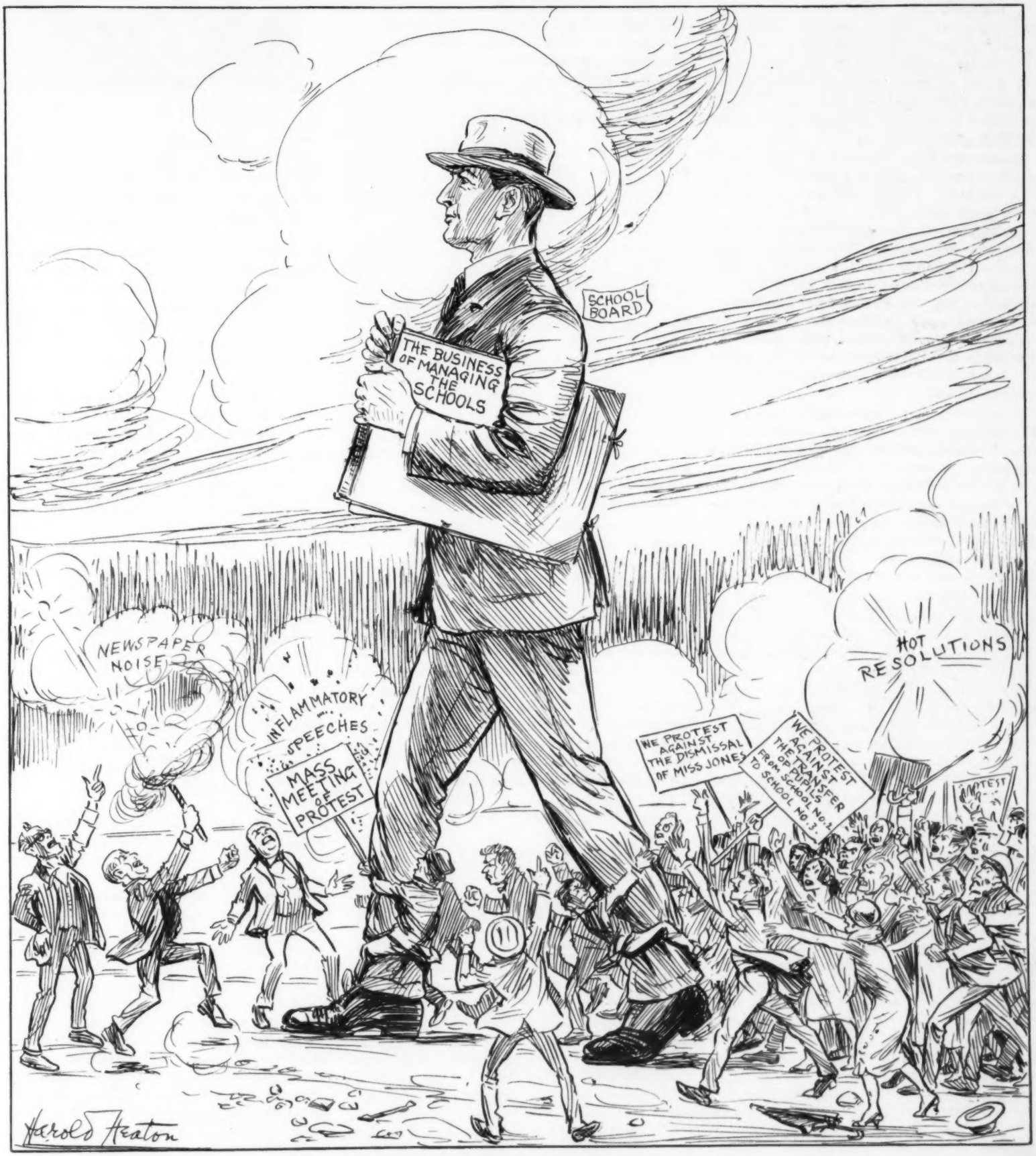

A Well Organized School Board Cannot Be Stampeded.

What Makes a Professional Teacher?

Margaret E. Haughawout, Pittsburg, Kansas

I yet remember the first time I heard the word professional used in that sense. It was in reference to a physician. Some one said, "He is the better doctor of the two; he is professional." And it was then that I first thought of it, that a doctor is professional or a quack, a lawyer is professional or a shyster, and a teacher is professional or a school-marm, a pedagogue, or one of several other things that you have heard and that are not very complimentary.

Each profession has some qualities that make up professionalness, that identify its members in a dignified and respectful way or the opposite; that associate its members with qualities which either are the shibboleth of the small fry among its constituency, or else look toward a solid group of big-minded men and women of large views whose final aim is to set humanity a peg higher in the scale of development, so far as teaching contributes.

I am not sure that I like having people say to me, "Oh, I knew as soon as I saw you that you were a teacher." I believe that other teachers feel the same way. Why? We are afraid of the ear-marks of the school-marm; we are afraid that people see us lifting long fore-finger and saying, "Johnny, shut that door;" or that we have the cock-sure attitude of the little, thin, long-nosed and spectacled woman of the cartoon who has held sway in Punkinville for forty years, never misspelled a word, and had a tolerable pride in naming the capitals of the states, or the bones of the body according to Steele's physiology, p. 120.

Just as we do not mind being child-like in some things all of our lives but never want to be childish; just as we want to be womanly and manly but do not want to be womanish or manish; so we don't want to be teachery, but we do want to be professional; just so, there are some qualities that are the sign and symbol of the small person and others that are the ear-marks of people of large views, of long foresight, of aims large enough to build up a profession.

We often hear certain things discussed as signs of the professional teacher. Some of them are clothes, dancing or amusements, taking a teachers' magazine, going to conventions, being acquainted with educational movements (being able, for instance, to tell the difference between a socialized recitation and a mental test), having a fair knowledge of the educational institutions of the United States and at least a smattering of the important ones in Europe; and a general intelligence along lines outside our chosen field such that we can at least look intelligent, ask questions, and be good listeners to leaders in other lines of work than our own.

These I believe are what are often called, or what I should point out as indications, some way or other, of how the teacher has dove-tailed into her world, in other words, whether or not she is a professional teacher.

Dr. Brady, of certain newspaper fame, a very quotable man, says that, in the matter of cigaret-smoking, it isn't so much that cigarets destroy a boy's mind and make of him a subnormal; he says that the boy who is low mentally, who wasn't given much gray matter to start with, hasn't much will power and can't help himself—he *is* the inveterate smoker.

I believe it is much the same way with the professional quality of teachers. I still believe that teachers, like poets, are born, not made. I believe the professional quality, like intelligence, beauty, height, weight, is in the first place a matter of birth-right. People differ in height. Why? Well, some grow tall and some don't. The Creator differed in his gifts to us. To some he gave a goodly stature and to some less. I believe that he has treated us teachers in the same way in giving us that quality that makes of us "the born teacher." Insofar as we have this quality, we sense things that make for schools in a big way and follow those things. According as we have much or little, we stay by the work, we go to seed in it, or we make progress in it. Some have had so much professional capacity that they became Moses or Froebel or Pestalozzi or Strayer. Some have so little that they make of teaching but a stepping-stone; or they make of their positions, jobs; and of their salaries, wages; or they wear out, nose to the grind-stone, growing seedier every year and finally drop, having seen nothing bigger in education than being able to recite the multiplication table.

Some say, "You must take a teacher's magazine. If you don't, you are not professional. You must go to the state or national association. If you don't, you are not professional. You must read at least one book on education every year. If you don't, you are not professional."

I wonder if a person who is professional can stand it very long without getting out of her groove, taking her mind where it can receive a touch of other minds that see further, other educators that have lived more broadly in the educational field. Of course we can teach day by day and draw a salary, or wages (just as we make it); but I believe that the person who has capacity can't help getting together with other minds that lead one on. We can go along in our village or county rut about so long. But we want a bigger view. People with professional capacity feel it, know it. They are somehow forced by something inside, telling them to go where they can get it.

It is the same way with regard to reading books on education. A teacher might be compelled by a superintendent or state requirements to read one book a year. That is good. But did you ever notice that the person who has a good deal of professional capacity is at your door often to ask you for a new book or some help along a new line of professional work? She can't help herself. She is impelled from within. She may not have one bit of faith in a new-fangled notion, but she feels that she must know about it. She has what Matthew Arnold calls intellectual curiosity about any idea that relates herself to her profession; and usually she is the person that goes to a better position if she wants it.

Some say, "Don't wear short skirts and dancing pumps in the schoolroom. It isn't professional." Certainly it is not. The woman that strives earnestly along her line of work has a fine instinct that tells her that ultra short skirts worn before boys of adolescent years by a young woman who is more or less of an ideal suggests thoughts and feelings in conscience that she doesn't want to arouse. No one need tell her. There is a fine sense that goes with professional capacity that tells her so.

On the other hand, there is something in the feeling of fitness that makes a person of professional capacity keep himself up to the standard. The same feeling that prompts a girl to know that gingham and serge dresses are more appropriate in a rural school than the chiffon and velvet party dress that she feels should be worn out, will prompt a person to keep neat and clean and well-groomed. If a banker feels that his position demands a pressed suit, won't the school man or woman feel, too, that a certain amount of laundry and tailor's bills are a minor necessity of the trade? It is a feeling of the dignity and worth of your work that demands as respectable a covering as does that of other men.

MRS. MARY D. BRADFORD,

Superintendent of Schools-Emeritus, Kenosha, Wis.

The above beautiful portrait of Mrs. Mary D. Bradford, who served for many years as head of the Kenosha school system, was painted by Mr. Robert Grafton, portrait artist, and now forms the chief point of interest in the library of the new Kenosha Central High School. The sum for the purchase of the portrait was raised by small contributions by 11,000 school children in the Kenosha schools.

Likewise, with dancing and those questionable things that some object to. It isn't that you can't do those things and be professional. If you have professional feeling you naturally sense the places where the minor thing stands in the way of the major; and the person with a goal beyond wipes out an obstacle about as easily as you brush from your eye the dust that keeps you from seeing.

About the hardest lesson for every young teacher to learn is her transition from student to teacher. Her desire to keep in sympathy with the student is so easily mistaken, and it is so hard to sense just where it is professional to keep herself in the position of teacher. I will venture the assertion that this is a mistake that nine out of ten teachers make in the early years of teaching, and often, the better teachers they make afterwards, the worse mistakes of this kind they make their first year. Here, too, however, it is her professional sense that saves her. According as she is possessed of that sense, she retracts quickly, not because she is afraid of losing her position—that is what makes the prude—but because she has a different vision of what her work will amount to finally.

It is this professional sense that gives a bigger view than the personal in looking at new legislation. You can favor a law because it will increase your salary. But the professional question is: What is the supply of teachers, and should teachers of this class be paid more? The professional mind says: Is it fair, just and right? Is it for the growth and development of the human race? If so, I am for it. If not, even if it is to my advantage, I am against it.

Lastly, I hesitate to add this last sorry bit: Webster's Unabridged, under the word *profession*, says that the three learned professions are the law, medicine, and ministry. Isn't that sad? We who teach the three bodies of men that are the only rightly called professions are not ourselves a profession. Is it any wonder that we are only struggling and have not yet attained these things? Isn't there something to be said on the other side too: What will the world do to make of us a profession?

But that, as Kipling says, is another story.

The Necessity for Research in Education

A. N. Jorgensen, Research Associate, University of Iowa

The best thinkers in the field of education have come to know that the modern school executive does not dictate policies until he has first made them, and that making them often involves much study and investigation. Staff service, that is, scientific investigation and research—is not a fad of the theorist, but an essential working tool of modern administration and management everywhere, education not excepted. Exact and exhaustive knowledge, and not delegated authority, will direct education henceforth in democratic America, the rule-of-thumb worker in public school work having lost his prestige in favor of the man who knows how to marshal facts and who works with reference to facts. It must now be clear to the modern school man, that research in education is essential if we are to solve the problems that are not only increasing in number, but also increasing in complexity.

The school is but one element in our complex culture. We have seen how numerous and difficult are the problems with which it has to deal. The same is true of every part of our social scheme, and to almost every part research has come to furnish the guidance needed.

As society grows in complexity the necessity for more and more study of physical, chemical, and social forces increases. The problems of getting food, shelter, and clothing, of maintaining justice, and of guarding against enemies are all very simple in a primitive tribe of a few hundreds of people, but not at all simple in a complicated society of millions. The World War brought most forcefully to mind the necessity for research. It was a game of wits and resources, and it soon became evident that the side would win which could make its resources go the farthest. Great laboratories of research were established by most of the governments at war, and their contribution in new ideas, issuing in the form of food, clothing, and offensive or defensive instruments of warfare are well known.

Our national Department of Agriculture, with its many specialized bureaus and divisions and experiment stations, illustrates well how governmental research has been brought to bear upon problems of great national import.

Similarly our state and municipal bureaus and divisions of research, devoted to the study of state and city governmental organization; to problems of health, highways, delinquency and education; and to the conduct of public business dealings have made it clear that research helps to guarantee honest government, a wise use of public money, and a rapid development of our public resources.[1]

Private and Industrial Research

Private industry has not been blind to the possibilities of research as a normal part of a great industrial organization. According to a recent survey, it was found that there are over 500 private industrial establishments in this country in which research work is being carried on.[2] In many cases extensive laboratories are fitted up for this purpose, and a high grade of scientific work is being done.

As one permits his mind to run over all that this suggests, and adds to the list the vast amount of work that is being carried on, by scientific societies, and by such organizations as the Carnegie Institute, the Rockefeller Institute, and other similar agencies, and by our state universities, he is impressed with the way in which research has become a normal and indispensable part of our social life. This is the setting, then, in which the more recent activities in educational research find themselves. We may well ask, not, shall we introduce research but how can the school make research a more effective part of our scheme of public education?

We have no national system of education in the legal sense, but we do have a most useful bureau which compiles valuable statistics, carries out important investigations, gives helpful advice, and has undertaken a number of experiments. Without the slightest authority to dictate educational procedure in the states, this bureau has rendered invaluable service through its own investigation, and through the carefully assembled data which have made possible thousands of studies that have been brought to bear upon state, county, and district school policies throughout the country.

Since the time of Horace Mann and Henry Barnard, our state school departments have appreciated the importance of research as a basis for proposed legislation, and many of our state school reports contain the results of valuable studies of the schools and their needs. Recently this aspect of the work in state departments is being emphasized more and more. We used to think of state inspection of schools. Later the emphasis began to shift from inspection toward supervision, and now to make supervision effective we have found that extensive staff service has to be provided and this has given rise to the bureau or division of research.

During the past decade more than 50 cities have established bureaus of research.[3] Each year since the beginning the number has increased. Not only large cities, but small cities as well, and even single high schools, have found it a profitable investment. The development of the movement has been linked up with the history of certain other useful experiments, such as the survey movement, tests and measurements, and studies of retardation, of health, and of guidance.

The Possible Functions of Research in Public Schools

Just as business and industry started their recent great expansion by calling in the expert accountant and the efficiency engineer, so education has called in the educational surveyor, also, as business very soon set up its own laboratory and efficiency staff, so education is doing the same in the bureau of research. That this work has come to stay now seems established. The teacher training institutions are anticipating it. To their old practice and demonstration schools are being added real experimental schools. Bureaus of research are becoming highly important factors in our state universities. These are giving a new turn to the meaning of extension work, and are offering leadership and a means of coordinating educational research work throughout their respective states. Local, state, and national teachers' associations are developing real research departments. Excellent periodicals and monographs, filled with the results of research on education, are growing in numbers and scientific devices for extending the field of research are being perfected.

Our leading superintendents have seen the need of such work, and many of their recently trained principals and teachers have been eager to undertake small tasks. The result has been that boards of education have seen its value and have been willing to follow their superintendent's lead in developing it.

Questions ranging all the way from the purchase of a school desk or the classification of a misfit pupil to the complicated problems of organization, building, bonding, costs, and curriculum-making can be settled properly only in the light of many facts. Often these facts are not apparent without a lengthy study of the situations and no single executive through the help of his clerical assistants can make all the studies needed.

Perfecting the system of record and report forms with reference to the functional demands of the schools, perfecting filing systems, devising systems for distributing information, and the treatment and interpretation of various combinations of statistics, will call for the services of a technically trained person. Much of the above work suggested would not be research work, in any proper sense, but all of it would facilitate research work. Often these records contain inaccuracies, and they are often clumsy in their arrangement. There are two reasons why certain parts of this work should be placed in the hands of the research department: first, because then it will become a specialized and expert service; and second, because it is necessary that the research workers have access to and intimate acquaintance with these data. The difference will be the difference between mere statistics and statistics properly treated and interpreted.

Administrative Problems

A second group of administrative problems that must be solved if the main school policy is to be sound may be grouped under the function of administration. Here would be included the investigations needed in order to build up a sound organization, strong staff, suitable building program, and a satisfactory plan of finance. Many studies will be necessary in the handling of the larger and more external problems of administration if the main structure of the school system is to be sound.

The development of an administrative code and a classification of the members of the staff, based upon a careful study of the function to be performed and the best ways of performing them; preparation and revision of salary schedules, tenure rules, local retirement and pension programs; study of anticipated state legislation, and of adjustment necessary to meet new laws; studies of problems in school architecture, such as types of buildings for various types of curricula, placement of buildings, seating and other permanent equipment; studies in cost analysis, cost of buildings, and insurance,

[1] See Volumes II and V of the Bulletins of the National Research Council for studies of research work being carried on by the states of California and Illinois.

[2] See Bulletin of the National Research Council, Vol. 1, Part 2, March, 1920, also Vol. II, 1921.

[3] Baldwin, Bird T.: Educational Research, U. S. Bureau of Education Bulletin No. 42, 1923.
Deffenbaugh, W. S.: Research Bureaus in City School Systems U. S. Bureau of Education, City School Leaflet, No. 5, 1925.
Martens Elise H.: Organization of Research Bureaus in City Schools, U. S. Bureau of Education, City School Leaflet, No. 14, 1924.

cost of bonding, types of credit financing, help on budget studies and studies on sources of income and depreciation—these suggest some of the needs of the board of education and the superintendent as they proceed with the development of the main school policy.

Supervisory and Instructional Problems

Supervision and instruction cannot be carried on effectually without information that can be had only as a result of wide and exhaustive studies of the factors involved. Pupils must be classified properly, properly adjusted to curricula, kept moving through their courses at their own best rates. We must know the intelligence of children, their physical conditions, their social heredity, and their home life. We must know the progress they have made in their studies, and the lines along which their latent and best achievement lies. We must know about absences, about leaving school, and about the best size for class groups. We must know the worth of our teaching methods, the meaning of our class marks, and how to make the adjustments needed to put each child under the very best instruction.

This will call for investigation and experiments along all these lines which will utilize all the best devices available for finding out these things.

Tests and scales for measuring mental ability and achievement in studies, score cards for judging the efficiency of instruction, and health indexes, all will suggest lines of work that can be set going and followed up year after year, much of it providing cumulative records running through and even beyond the child's school career.

Curriculum Problems

Another group of problems will center about the study of curricula content, curricula organization, and classroom equipment. What types of curricula and types of schools shall be provided, what types of special rooms and courses, what shall be included in each grade or year of each course offered, and what facilities are needed for carrying on instruction. Experiments in the use of open-air rooms and schools, in opportunity classes, in ungraded rooms, and in special adjustment rooms will be needed constantly in a progressive school system.

Throughout this article the writer has endeavored to emphasize at every point that investigation and experiment, that is, research, is one of the valuable rational means of intelligently carrying on administrative processes in a modern school system. The experts have pointed the way. They have devised the technique, and in various types of surveys they have demonstrated its application to practical school problems. Now it is time for the expert's knowledge to be organized and taken over by the regular school machinery. The time has come when the modern teacher, supervisor, and administrator must be guided not by the authority of officials but by the authority of facts.

Finance for the Small School

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The problem of obtaining support is most vital in practically all school systems, regardless of size. It has become increasingly difficult as economic conditions have become more uncertain, and programs of economy have been instituted in many systems. The continuous publicity program has been demonstrated as an important aid in securing adequate funds but in many cases, especially among the smaller schools, the districts have great difficulty in maintaining the standard of school which seemingly might be expected. In other words, under the prevailing system of taxation the size of many taxing areas is too limited to furnish sufficient support. The necessity of changing the method is becoming more and more widely recognized, but for some time the school administrator in such a situation must face the necessity of attempting to best administer the inadequate income so often available.

Districts consisting of villages and small towns are often decidedly handicapped by the limitations on the taxing area. In order to offset such an unfortunate situation many carry on more or less extensive campaigns for securing tuition pupils from the outlying rural districts. Thus considerable additional income is often secured, sometimes in amounts sufficient to be of great importance. Consolidated districts have been organized usually to include a sufficient taxing area to insure a reasonable income. In some states a minimum has been determined and is actually required by statute. This is well, for the possible number of tuition paying pupils in a consolidated school is necessarily limited. In order to encourage the attendance of this type of pupils, however, some consolidated schools offer special inducements, such as free transportation to the school from the boundaries of the district to all who can readily reach a bus route; many offer such transportation at comparatively low rates.

The Administrator's Task

In either the village system or the consolidated school, the administrator has a well defined task. In case the district is so fortunate as to have, from various sources, a satisfactory income, he must take the lead in properly conserving the funds available. The confidence of the community in a substantial, positive, progressive school program, without undue and unjustifiable expenditures, may be assumed as a matter of course. Perhaps the program may be extended gradually but the relation to the problem of support must be kept constantly in mind. If the district is truly of too limited an area to supply adequate support, the administrator must prove his ability by outlining a program that will best function under the existing limitations. A commendable degree of efficiency may be developed in such administration; if not carried to an unreasonable extreme it may be an admirable asset.

In planning and administering a program for such a school, as well as others more fortunately situated, all items involving an expenditure may well be studied and analyzed. The largest expenditure, without exception, will be for teachers' salaries. In order to secure well prepared, desirable instructors, salaries comparable with those of other schools must be paid. Cheap instruction is, all too often, a most expensive mistake.

Some schools have contributed toward the solution of the teacher problem by engaging a grade teacher who is capable of instructing in

music, perhaps, or in some other special subjects which we hesitate to exclude from the school experiences of our youth. Such a teacher, or teachers, may exchange instruction periods while presenting her special subject to the other grades. The combining of grades under one teacher is very often effected without undue loss of efficiency. This may often include even the dividing of a grade for addition to the work of two teachers already in the system, to eliminate the necessity of securing an additional teacher to care for that grade. In the high school department of the small school, various special subjects are often presented by teachers who give a part of their time to instruction in regular subjects. Thus music and history, or home economics and mathematics, may be combined. A broad program of studies may be systematically offered by alternating the teaching of certain subjects, perhaps offering some in alternating semesters and some in alternate years. In the small school the comparatively small enrollment in classes will readily permit such an arrangement.

Transportation and Supplies

In transportation in the consolidated system, savings can often be effected by a careful study and planning of the routes, to eliminate all unnecessary travel. Occasionally a bus driver may be secured to serve as mechanic for the system, and in many cases some of the most resourceful and dependable drivers are high school students, carefully chosen by the administrator. Many schools own the busses used in transportation, others provide the bodies and require the drivers to provide the chassis, if motorized, while still others require the drivers to furnish the entire equipment. Each method is favored to a greater or less extent. With either, efficient supervision is necessary to keep the expense of transportation within justifiable limits, especially for an extended period of years. To organize such a program of supervision may require some time, especially where little attention has been given to the matter in the past. The considerable possible saving, however, serves to make an attempt greatly worthwhile.

The next item of expense is that including the supplies necessary to operate the school. In proceeding into this field, the administrator should by all means enlist the cooperation of the teaching staff and janitors. Their aid in carrying out such a conservation program is extremely essential. Purchasing of many supplies may well be based on competitive estimates furnished by a number of representative companies dealing in such products. Even printing bills which are often necessary even if the school is equipped with a mimeograph or duplicator may well be submitted for such estimates, if of any consequence. Continued use of proven types of brushes, brooms, oils, sweeping compounds, pastes, and numerous other supply items is assuredly an economy. The unorganized system of buying without regard for quality is not. Liquid soaps and inks may well be purchased in concentrated form. If large quantities of papers are used by the school, a careful estimate of future needs, with the correspondingly larger orders which will be possible, will aid in effecting a considerable saving.

The advantages of such a program of administering the finances of the school are outstanding. The savings will undoubtedly be of great aid in further extending the facilities of the school. When a community comes to know of the existence of such a program, its confidence in the ability of the administrator, as well as of the board of education, will be extended, and, later, such confidence may result in the providing of greater support for the school system.

Trends of State and National Expenditures for Education in Terms of Wealth

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It is common knowledge that the amounts spent for education have increased everywhere by leaps and bounds within recent years. By way of review, it may be said that the expenditures for education in the United States increased from $63,396,666 in 1870, to $78,094,687 in 1880, to $140,506,715 in 1890, to $214,964,618 in 1900, to $426,250,434 in 1910, to $1,036,151,209 in 1920, and to $1,580,671,296 in 1922. Corresponding data for the various states and for the various local units of the states show almost universally the same large increases.

But merely to display the basic data for a given situation is seldom sufficient for a full understanding; generally, if one would give a complete view of a situation, the facts must be *interpreted* as well as *shown*. This is obviously true of any data designed to portray trends of school costs. To show for the United States that school expenditures increased more than twenty-five times—as they actually did—in the fifty-two-year period from 1870 to 1922 means little *per se*. Standing alone, this increase—which is more than a 2500 per cent increase—would probably be interpreted as huge; but, before the size of the increase can be finally judged, we must note the causes of the increase and the increase in financial ability as measured by wealth. It is the purpose of this paper, therefore, to describe the trends of expenditures for education in each of the several states and in the nation for various decades from 1870 to 1922, the latest year for which data are now available. The data, which are to follow, will show for various periods (1) the per inhabitant expenditures for education; and (2) the expenditures for education per $1,000 of wealth. By the term, "expenditures," we shall mean, throughout the study, expenditures for both *current expenses* and *capital outlays* for public elementary and secondary schools; expenditures for private and parochial schools and those for higher institutions of learning are not included in the data of this study.

I. Increase in Per Inhabitant Expenditures

Table I is designed to show the per inhabitant expenditures for education in each state and in the nation for various decades from 1870 to 1922. The table brings out the fact that the per inhabitant expenditures for education in the United States have increased slightly more than eight-fold in the period under view. The increases have been particularly rapid in the last two decades; the per inhabitant expenditures increased from $1.75 in 1870 to $2.84 in 1900, but following the latter date they mounted much more rapidly, going from $5.05 per inhabitant in 1912 to $9.80 in 1920 and to $14.47 in 1922.

An inspection of the ranks of the several states for each of the periods of time studied reveals the fact that the ranks of most of the states were about the same throughout the various periods. Noting Alabama, for example, it is seen that her ranks for the various periods were as follows: 41, 40, 44, 47.5, 45, 45, and 46. Due probably to their more recent development, the western states as a rule have tended during recent years to improve their ranks.

Another interesting fact brought out by the table is that certain sections of the nation have tended to spend much more for education than have other sections. In recent years, the western states have clearly led; the southern have been cellar champions; while the remainder have occupied middle ranks. There are a few exceptions to these sectional rankings, but, generally speaking, the rule is as indicated in the preceding sentence. These sectional differences are displayed in Figure 1 which shows the ranks of the several states in per inhabitant expenditures for education in 1922.

TABLE I—Trends of State Expenditures for Education per Inhabitant, 1870-1922*

State	1870 Exp.	1870 Rank	1880 Exp.	1880 Rank	1890 Exp.	1890 Rank	1900 Exp.	1900 Rank	1912 Exp.	1912 Rank	1920 Exp.	1920 Rank	1922 Exp.	1922 Rank
Alabama	$ .36†	41	$ .40†	40	$ .59†	44	$ .50	47.5	$1.68	45	$3.88	45	$5.34	45
Arizona	‡	..	1.51	26	3.05	12	2.44	31	5.94	20	18.97	5	19.22	17
Arkansas	1.02†	31	.36	41	.90	39	1.04	41	2.35	43	4.40	42	4.91	47
California	2.93	2	3.31	2	4.29	1	4.65	5	9.30	1	14.29	14	25.30	1
Colorado	1.44	23	2.03	12.5	4.08	2	5.18	2	7.62	8	14.05	15	19.85	14
Connecticut	2.74	3	2.26	9	2.89	15.5	3.51	15.5	5.36	24	11.82	20	14.72	24
Delaware	1.21	28	1.41	27	1.63†	33	2.40	32	2.93	37	7.52	35	10.80	34
Florida	.66	37	.43	39	1.32	36	1.45	38	2.90	38	7.26	36	9.54	38
Georgia	.24	42	.31	43	.65	43	.89	42.5	1.89	44	3.13	47	4.55	48
Idaho	1.17	29	1.18	31	2.00	30	2.47	29.5	8.17	7	19.89	3	20.81	12
Illinois	2.57	6	2.28	7	3.04	13	3.08	23	5.88	22	10.69	24	15.40	22
Indiana	1.70†	16.5	2.27	8	2.39	23	3.25	18	6.00	19	12.20	19	21.19	9
Iowa	2.70	4	2.76	4	3.34	9	3.81	12	6.58	13.5	15.53	10	20.21	13
Kansas	2.24	11	1.83	16	3.48	7	3.14	21	6.41	16	14.84	13	19.18	18
Kentucky	.80†	33	.65	34.5	1.15	37	1.41	39	2.89	39	3.36	46	5.78	43
Louisiana	.71	35.5	.44	38	.73	42	.82	45	2.68	40	6.32	38	8.97	39
Maine	1.51	21.5	1.65	22.5	2.01	29	2.47	29.5	4.19	31	8.34	32	10.67	36
Maryland	1.53	20	1.65	22.5	1.83	32	2.30	33	3.13	35	5.69	39	9.88	37
Massachusetts	3.73	1	2.80	3	3.70	4	4.93	3	6.44	15	10.62	25	14.41	25
Michigan	2.33	10	1.70	19.5	2.55	21	3.01	24	5.77	23	13.00	16	18.70	19
Minnesota	2.06	13	1.70	19.5	3.22	10	3.21	19.5	7.09	11	14.97	12	21.16	10
Mississippi	1.11	30	.73	33	.86	40.5	.89	42.5	1.52	48	3.06	48	5.24	46
Missouri	.99	32	1.23	30	2.03	28	2.52	28	4.41	28	8.43	30.5	11.94	30
Montana	1.62†	19	2.01	14	2.76	17	3.79	13	8.27	5	22.24	1	23.55	4
Nebraska	2.61	5	2.45	6	3.19	11	4.13	7	7.18	10	15.88	9	23.19	5.5
Nevada	1.93†	15	3.54	1	3.53	6	5.30	1	6.90	12	16.59	8	21.62	7
N. Hampshire	1.30	34.5	1.63	24	2.24	26	2.56	27	4.21	30	8.60	29	10.94	33
N. Jersey	2.48	8	1.66	21	2.31	24	3.51	15.5	7.59	9	12.96	17	19.29	16
N. Mexico	.05†	44	.24	45	.55†	45	1.76	35	3.12	36	11.49	22	14.00	27
N. York	2.17	12	2.03	12.5	2.92	14	4.00	8.5	6.08	18	10.21	27	17.12	20
N. Carolina	.16	43	.27	44	.44	46	.50	47.5	1.66	46	4.75	41	8.33	41
N. Dakota	‡	..	‡	..	3.43	8	4.78	4	8.60	3	19.92	2	23.19	5.5
Ohio	2.52	7	2.24	11	2.89	15.5	3.21	19.5	5.89	21	11.71	21	19.38	15
Oklahoma	‡	..	‡	..	‡	..	1.72	36	4.11	32	11.29	23	14.35	26
Oregon	1.65†	18	1.76	17	2.57	19	3.86	11	8.34	4	12.76	18	16.79	21
Pennsylvania	2.36	9	1.72	18	2.46	22	3.41	17	5.34	25	8.43	30.5	12.17	29
R. Island	2.05	14	1.90	15	2.56	20	3.61	14	4.23	29	7.89	33	11.50	32
S. Carolina	.38	40	.33	42	.39	47	.67	46	1.53	47	3.94	44	5.54	44
S. Dakota	‡	..	‡	..	3.65	5	4.00	8.5	6.58	13.5	18.21	7	23.92	3
Tennessee	.59†	38	.48	37	.86	40.5	.87	44	2.49	42	4.34	43	6.38	42
Texas	.74	34	.65†	34.5	1.42	35	1.46	37	3.55	34	7.21	37	10.79	35
Utah	1.28†	26	.92	32	1.90	31	3.96	10	9.18	2	18.34	6	21.24	8
Vermont	1.51	21.5	1.34	29	2.14	27	3.13	22	5.06	26	10.18	28	11.72	31
Virginia	.47	39	.63	36	.97	38	1.07	40	2.50	41	5.62	40	8.94	40
Washington	1.30†	24.5	1.50	5	2.74	18	4.59	6	8.21	6	15.18	11	20.99	11
W. Virginia	1.26	27	1.14	25	1.57	34	2.10	34	3.93	33	7.79	34	12.20	28
Wisconsin	1.70	16.5	1.65	10	2.25	25	2.65	26	4.92	27	10.36	26	14.82	23
Wyoming	.71†	35.5	1.37	28	3.71†	3	2.74	25	6.31	17	19.25	4	24.49	2
U. S.	$1.75		$1.56		$2.24		$2.84		$5.05		$9.80		$14.47	

*The data for 1870-1912 are taken from the Report of the U. S. Com. of Ed., 1913, Vol. II, p. 31; those for 1920 are taken from U. S. Bur. of Ed., Bul., 1922, No. 29, pp. 44-45; those for 1922 are taken from U. S. Bur. of Ed., Bul., 1924, No. 38, p. 13.
†Approximate.
‡No data available.

I. Explanations for the Increases

The explanations for the increases in school expenditures are: (1) An increase in school enrollment; (2) a decrease in the purchasing power of the dollar; and (3) a growing insistence on the part of the public that the quality of education be improved and that the amount given the typical individual be increased. The influence of each of these factors will be commented upon briefly herewith.

A. Increase in School Enrollment. Regarding the effect of the increase in school enrollment, it may be said that school enrollment increased much more rapidly than total population. A comparison of the increases in total population and school enrollment is made in Table II.

TABLE II—A Comparison of Total Population and School Enrollment at Various Periods in the United States from 1870 to 1922.

Year	Total Population*	Percentages	School Enrollment‡	Percentages
1870	38,558,371	100	6,871,522	100
1880	50,155,783	130	9,867,505	144
1890	62,947,714	163	12,722,581	185
1900	75,994,575	197	15,503,110	226
1910	91,972,266	238	17,813,852	259
1920	105,710,620	274	21,578,316	314
1922	109,248,393†	283	23,239,227‡	338

*Fourteenth Census of the United States (1920), p. 18.
†Estimate of the U. S. Bureau of the Census. (Letter of Aug. 14, 1925.)
‡U. S. Bureau of Education, Bulletin, 1922, No. 29, p. 5.
§U. S. Bureau of Education, Bulletin, 1924, No. 38, p. 12.

Table II makes clear that by far the largest increase in enrollment—due probably to the lengthening of the compulsory attendance period, a better enforcement of the attendance laws, and a developing appreciation on the part of the people of the importance of education—came in the period following 1910. In the twelve years from 1910 to 1922, enrollment increased 36 per cent, whereas total population increased only 19 per cent. This great increase in enrollment in recent years accounts largely for the unusually heavy increase in school costs in the same time.

The percentage of the school population found in high school would be expected to influence greatly the cost of education. Whether it should be that way or not, in the high school, teachers' salaries are higher and better and more buildings, equipment, supplies, and other things that further the educational process are deemed necessary. In view of these considerations, it is pertinent to note the increasing percentage of the school population found in the high schools. Table III is designed to show the percentage which the number of pupils enrolled in the high schools was of the number in all schools (elementary and high) each decade from 1870 to 1922.

TABLE III—Percentages which High School Enrollment Was of Total School Enrollment in the United States at Various Decades from 1870 to 1922.*

Year	1870	1880	1890	1900	1910	1920	1922
Percentage	1.2	1.1	1.4	1.6	3.3	10.2	12.4

*The data for the years from 1870 to 1920 were taken from U. S. Bureau of Education, Bulletin, 1922, No. 29, p. 6; the data for 1922 were taken from Ibid., 1924, No. 38, p. 2.

The table (Table III) brings out the fact that the enrollment of high school pupils in 1870 was only 1.2 per cent of the total enrollment in the elementary and high schools of the nation. By 1922, however, the percentage had mounted to 12.4. This fact would of course tend to increase the cost of education.

To summarize the effect of the increased enrollment on the cost of education, it may be said that from the data of Table II it is apparent that the enrollment load, which the schools were required to carry, increased 183 per cent from 1870 to 1922, while school enrollment increased 228 per cent. Table III shows, more-

over, that the percentages of the total school population enrolled in high school, where education is much more expensive, has mounted rapidly, particularly since 1900. Therefore, these two factors, namely, the increase in total enrollment and the increasing percentages of the enrollment found in high school, partly explain the increase in school costs; however, they do not explain nearly all of the increase.

B. Decrease in the Purchasing Power of the Dollar. It is a matter of common knowledge that the purchasing power of the dollar is continuously changing. A dollar today does not represent the same purchasing power that it did, say, five or ten years ago. Prices of food, clothing, building materials, school supplies, etc., are constantly changing. In any study, therefore, of the trends of school costs, the changes in the purchasing power of the dollar must be considered.

During the same time that school expenditures have been increasing the purchasing power of the dollar has been decreasing. In recent years, it has cost much more to buy certain items than it formerly did. For example, in 1920, it cost more than twice as much to buy a given article as it did in 1913, and approximately one-third more in 1922 than it did in 1913. Generally speaking, the purchasing power of the dollar was much greater for any year previous to 1913 than for any year since that date.

The Bureau of Agricultural Economics of the United States Department of Agriculture has computed for each year from 1801 to date a continuous commodity index which may be taken to represent for various periods the purchasing power of the dollar. The year 1913 was taken as a base for computing the index, the purchasing power of the dollar at that time being taken as 100. The index numbers, as given by the Bureau for each year from 1870 to 1922, are shown in Table IV.

The index numbers of the table may be taken to represent the number of cents that were required to purchase the same quantity of a given commodity for the years stated as 100 cents purchased in 1913. For example, if 100 cents were required to purchase a bushel of wheat in 1913, it required 226 cents in 1920 to purchase the same quantity. From the table, we observe that for 1870 125 cents were required to purchase what 100 cents were sufficient for in 1913. The smallest number of cents required at any time to be equivalent in purchasing power to the number for 1913 was 66 in 1896; the highest number was 226 in 1920. In 1922, the index of the purchasing power was 149.

TABLE IV—Continuous Commodity Index, 1870-1922*

Year	Index	Year	Index
1870	125	1897	67
1871	119	1898	69
1872	122	1899	74
1873	121	1900	80
1874	117	1901	79
1875	112	1902	85
1876	104	1903	85
1877	97	1904	86
1878	89	1905	85
1879	85	1906	88
1880	94	1907	94
1881	93	1908	91
1882	95	1909	97
1883	93	1910	99
1884	87	1911	95
1885	82	1912	101
1886	81	1913	100
1887	81	1914	98
1888	83	1915	101
1889	83	1916	127
1890	81	1917	177
1891	82	1918	194
1892	76	1919	206
1893	77	1920	226
1894	69	1921	147
1895	70	1922	149
1896	66		

Method of Making Continuous Commodity Index

"The index numbers from 1890 to 1920 are a continuous series computed by the same method throughout and kept up-to-date monthly since 1913 (January). The numbers from 1840 to 1889 are from 'Wholesale Prices, Wages, and Transportation' (Senate Report No. 1394, Finance Committee, 2nd Session, 52nd Congress, Part I, page 91). Changed to 1913 as 100 through the figures for 1890, which is the first year included in both series of index numbers."

*Table 463-12 of the Bureau of Agricultural Economics of the United States Department of Agriculture.

C. Improvement of the Quality of Education. Thus far, in our discussion of the factors that account for the mounting costs of education, we have considered the influence of two factors, namely: The increase in school attendance, and the decrease in the purchasing power of the dollar. These factors, although they account for a large part of the increase in costs, do not account for nearly all of it. The extra amounts that were spent, which amounts the two aforementioned factors do not account for, (assuming that there was no waste) may be said to have gone into improving the quality of education and into giving a greater amount of it to the typical individual. Some ways in which the quality of education given has been improved and the amount afforded has been increased are: An increase in the length of the school term; an enriched curriculum; better trained teachers; better buildings, equipment, and supplies; and extra services such as libraries, health supervision, pupil transportation, teachers, pensions, given by the schools.

TABLE V—TRENDS OF STATE EXPENDITURES FOR EDUCATION PER $1,000 OF WEALTH, 1870-1922*

State	1870 Exp.	1870 Rank	1880 Exp.	1880 Rank	1890 Exp.	1890 Rank	1900 Exp.	1900 Rank	1912 Exp.	1912 Rank	1922 Exp.	1922 Rank
Alabama	$2.29†	30	$1.17†	35	$1.43	34	$1.19	44	$1.84	47	$4.27	31
Arizona	‡	..	1.49+	25	.96	44	1.10	46	2.89	16	5.68	15
Arkansas	4.16†	10	1.00	40	2.23	19	2.27	25	2.23	39	3.16	47
California	3.35	19	2.13	8	2.05	22	2.15—	31	2.81	18	6.22	9
Colorado	4.16+	9	1.65	21	1.47	33	2.97	6	2.82	17	5.99	12
Connecticut	2.42	28	1.81	17	2.58	11	2.66	12	2.67	23	4.04	34
Delaware	1.97	33	1.52	24	1.57	32	2.14	32	1.98	43	3.94	39
Florida	3.66	15	.95	41	1.33	38	2.15+	30	2.48	27	4.00	35
Georgia	1.36	41	.78	43	1.39	35	2.12	34	2.36	31	3.46	46
Idaho	3.64	16	1.33	31	.83	46	1.44	40	5.10	1	6.23	8
Illinois	3.92	11	2.19	7	2.29	17	2.55	15	2.28	34	4.64	24
Indiana	2.86†	25	2.67	2	2.50	13	3.14	3	3.07	11	7.18	2
Iowa	5.69	4	2.61	3	2.79	3	2.52+	16	1.90	44	4.71	26
Kansas	5.98	3	2.39	4	2.76	4	2.38	22	2.44	30	5.48	16
Kentucky	2.22	31	1.18	34	1.83	26	2.23—	28	2.94	14	3.95	38
Louisiana	1.86	36	1.08	37	1.65	30	1.39	42	2.32	33	4.82	25
Maine	3.41+	17	2.09	9	2.71+	5	2.51	18	3.10	9	4.12	32
Maryland	2.36	29	1.84	15	1.76	27	2.13	33	1.89	45	3.69	41
Massachusetts	3.27	20	1.90	14	2.95	1	3.17	2	3.53	4	4.42	28
Michigan	4.94	8	1.76	18	2.55	12	2.75	9	3.16—	8	6.38	4
Minnesota	5.25	6	1.68	20	2.47	14	2.24	26	2.80	20	6.11	10
Mississippi	5.67	5	2.35	5	2.44	15	2.48	19	2.27+	35	4.31	30
Missouri	1.70	39	1.71	19	2.27	18	2.41	21	2.57	26	4.11	33
Montana	2.93	24	1.97	12	.80	47	1.50	39	2.90	15	6.29	6
Nebraska	6.59	2	2.88	1	2.65	8	2.70	10	2.35	32	5.77	14
Nevada	3.41†	18	1.41	29	.89	45	1.17	45	1.38	48	3.09	48
New Hampshire	2.07	32	1.55	23	2.59	10	2.23+	27	2.78	21	3.56—	45
New Jersey	3.06	22	1.44	28	2.31	16	2.42	20	3.39	5	5.42	17
New Mexico	.19†	44	.58	44	1.37	36	1.28	43	2.25	37	6.06	11
New York	1.85	37	1.63	22	2.04	23	2.67	11	2.22	40	4.97	22
North Carolina	.85	43	.82	42	1.22	41	1.40	41	2.24	38	4.86	24
North Dakota	‡	..	‡	..	1.86	25	2.81	8	2.58	25	6.25	7
Ohio	3.82	13	2.21	6	2.71—	6	2.65+	13	3.16+	7	6.30	5
Oklahoma	‡	..	‡	..	‡	..	.85	48	2.44+	28	7.63	1
Oregon	3.88†	12	1.99	11	1.36	37	2.52—	17	2.96	13	3.99	36
Pennsylvania	2.78	26	1.49	26	2.09	20	2.31	23	2.62	24	3.79	40
Rhode Island	1.94	34	1.32	32	1.75	28	2.18	29	2.44—	29	3.66	42
South Carolina	1.65	40	1.07	38	1.12	43	1.82	37	1.88	46	3.56+	44
South Dakota	‡	..	‡	..	2.82	2	2.90	7	3.09	10	5.31	19
Tennessee	1.92†	35	1.06	39	1.72	29	1.83	36	2.99	12	3.59	43
Texas	5.11	7	1.25	33	1.59	31	1.92	35	2.27	36	5.32	18
Utah	9.05	1	1.15	36	1.13	42	2.65—	14	4.56	2	6.42	3
Vermont	2.66	27	1.47	27	2.68	7	3.26	1	3.59	3	4.90	23
Virginia	1.79	38	1.34	30	1.86+	24	1.81	38	2.19	41	4.34	29
Washington	3.23†	21	1.82	16	1.26	40	3.04	5	3.37	6	5.78	13
West Virginia	3.79	14	2.02	10	2.62	9	3.05	4	2.07	42	3.98	37
Wisconsin	3.04	23	1.91	13	2.07	21	2.28	24	2.72	22	5.10	20
Wyoming	1.24	42	.52	45	1.32	39	.90	47	2.80+	19	5.19	21
United States	$2.87		$1.79		$2.16		$2.43		$2.59		$4.93	

*The data on wealth are taken from Bureau of Census, Estimated Value of National Wealth, p. 3. Those on expenditures for education (1870-1912) are taken from the Report of the U. S. Com. of Ed., 1913, Vol. II, p. 32; expenditures in 1920 are taken from U. S. Bureau of Ed., Bul. 1924, No. 38, p. 12.
†Approximate.
‡No data available.
§These data are for 1920.

II. Increase in Expenditures Compared with Wealth

The previous section of this report has shown that for each decade the cost of education has been rapidly increasing, due to the decrease in the purchasing power of the dollar, to the schools assuming new functions and rendering greater service to the people. If the people desire that the schools assume these new burdens and if they are willing and able to pay the increased cost, there is no reason for alarm. It will be pertinent, therefore, at this point to compare the increase in school expenditures with the increase in wealth. Data showing expenditures for education per $1000 of wealth are displayed in Table V.

In reading Table V, it should be kept in mind that the table shows expenditures per $1,000 of

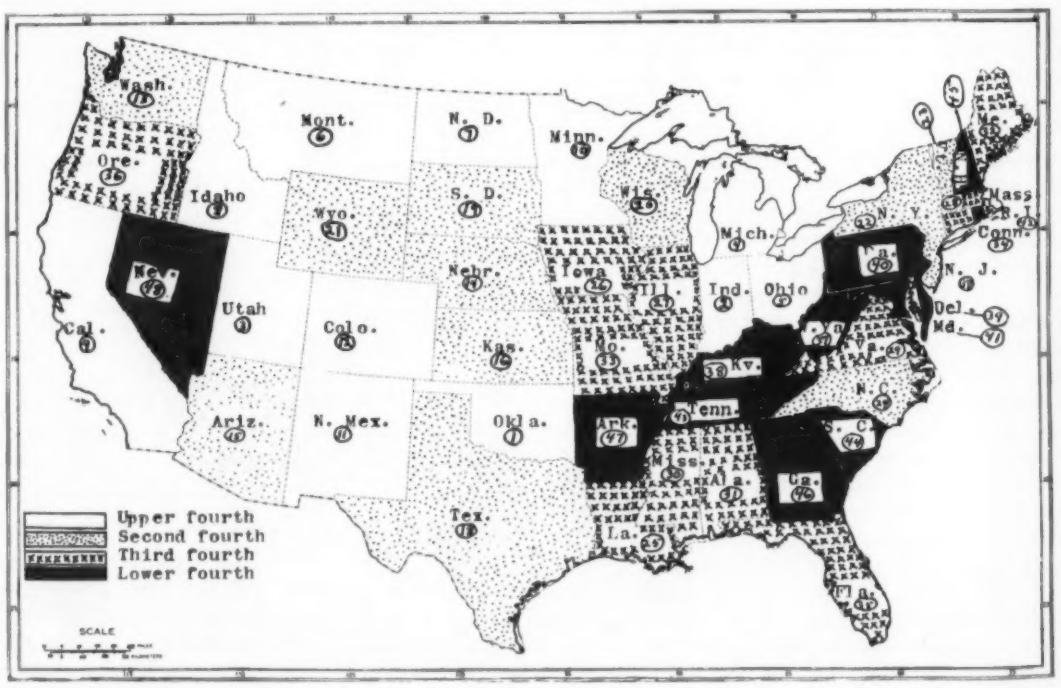


CHART OF EXPENDITURES FOR EDUCATION IN THE VARIOUS STATES PER $1,000 OF WEALTH.

estimated actual wealth, not *taxable* wealth. The estimates of actual wealth were made by the U. S. Bureau of Census and were based on the wealth reported for purposes of taxation. In making the estimates for any state, the census officials compute the percentage which the taxable value of property is of the true value of the property in money, then compute the true value using this percentage. It should be kept in mind, therefore, that the *actual* wealth of any state or of the nation is not definitely known. The estimates given, although they appear to have been carefully worked out, may be far from correct.

The table makes clear that, with one exception, namely, 1880, the financial sacrifices of the nation for schools have increased; this has been particularly true of recent years. From 1870 to 1912, the expenditures for education per $1,000 of wealth were as follows: For 1870, $2.87; for 1880, $1.79; for 1890, $2.16; for 1900, $2.43; and for 1912, $2.59. It is thus seen that the financial sacrifices from 1870 to 1912 were approximately the same. However, from 1912 to 1922, the sacrifice was much greater, the expenditures mounting from $2.59 in 1912 to $4.93 in 1922.

The table brings out strikingly also that the states vary widely in the sacrifice which they make for schools. In 1922, Oklahoma was making the greatest sacrifice; in that year, she spent for public education $7.63 per $1,000 of wealth. This expenditure, it should be noted, was approximately 2½ times that of Nevada, which state ranked 48, with an expenditure of $3.09 per $1,000 of wealth. Though there are several exceptions to the rule, the western states appear to be making the greatest sacrifice; the southern seem to be making the least sacrifice; while the remainder occupy a middle ground. These sectional differences for 1922 are brought out fully in Figure 2.

III. Summary

The study has shown that the people of the United States have tended to finance their schools better and better as the years have gone by. The per inhabitant expenditures for education have been seen to have increased approximately 800 per cent in the period under view. In terms of ability, however, the expenditures for education increased much less—approximately 200 per cent in the same period. The study has further shown that the states have varied widely in their per inhabitant expenditures for education and in their sacrifices for schools as measured by their expenditures per $1,000 of wealth.

In a review of the trends of school costs, there is nothing to make one conclude that such costs will not continue increasing, at least for some years to come. The same factors, or at least some of the same factors, that operated to cause the increases in the past will probably continue to operate. School attendance will probably continue to increase at about the same rate at which the total population increases, but likely in a few years the peak of high school attendance will have been reached. Moreover, the people will probably continue to insist upon a better and better quality of education as they have in the past; they will go on insisting that certain shortcomings of the schools be obviated —shortcomings in such important matters as qualifications of teachers, ample, safe, and sanitary buildings, sites, equipment, and supplies. To meet these demands, additional expenditures will be required.

In conclusion, let it be said that one cannot review, even casually, the increases in school costs without being impressed with the large faith of the people in education. All that the people insist upon is that the increasing amounts, which are being asked for, are actually needed and that the funds will be spent without waste and inefficiency—this they have always insisted upon, do now insist upon, and will continue to insist upon, and rightly so.

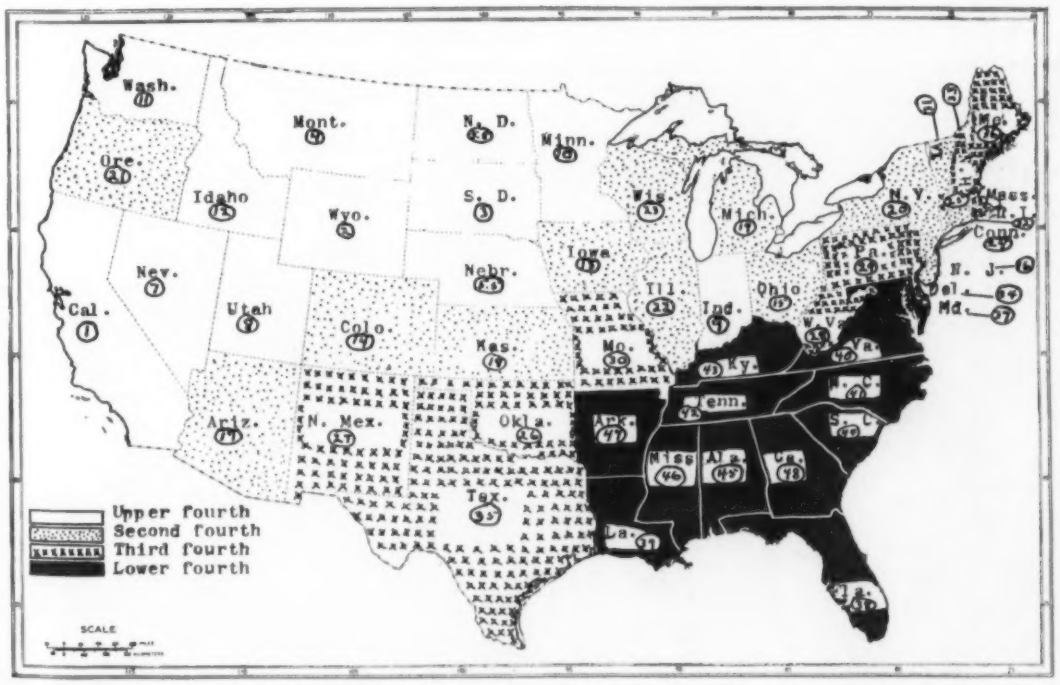


CHART OF PER INHABITANT EXPENDITURES FOR EDUCATION IN THE VARIOUS STATES.

The Mental Ability of Athletes in Comparison With Non-Athletes in High School

F. A. Beu, Superintendent of Schools, Hebron, Ill.

For the last ten years educators in different sections of the United States have argued pro and con about the intelligence of athletes in comparison with non-athletes. In some cases, the result of the argument has been in favor of the former, and then again for the latter. Very often the person who gave the results of his investigation gave the tests to students for another purpose and then jumped at the conclusion without going into detail.

For example, an educator opposed to athletics in his high school will select an isolated case where the student is a wonderful athlete and a typical "bonehead." Immediately he condemns all students interested in athletics as being in the same category. Many high schools and universities have kept accurate records of their students and have found over a period of years that there is practically no difference between the two types of students. But they have found it beneficial for the students to take some physical exercise at least three days a week. Therefore, most educational institutions require that amount of exercise of their students.

In 1922 I gave the Otis advanced group intelligence tests to 1100 high school students in the State of Illinois. These students were not taken from any special part of the state, but from different sections. Some were from high schools having less than 100 students, and others were from schools having several thousand. This was done so as not to have any special group or community.

Almost everyone is familiar with tests and methods of giving them—the I.Q., P.R., 1.B., A.Q., etc., therefore I will not go into detail to explain about them. The group test was given to all the students. There were about 530 students in each group, as some of the papers were incomplete and could not be used in the study.

The first comparison of the two groups of students was on the basis of the percentile rank. The students were distributed from zero to one hundred according to their percentile rank. For example, if their P.R. is 32, they were placed in the interval 30-34.99. In arranging them in this manner it will be noticed in table I that most of the students are in the upper end of the scale. The students in the different class intervals varied from two to 94 in one interval.

The two groups are about equal in their distribution until the last three intervals at the upper end of the scale. Here you will notice that the athletes and non-athletes have 54, 94, and 87; and 47, 50, and 59 respectively. From this it will be seen that the athletes have a slight advantage over the non-athletes in regard to the distribution of their percentile rank.

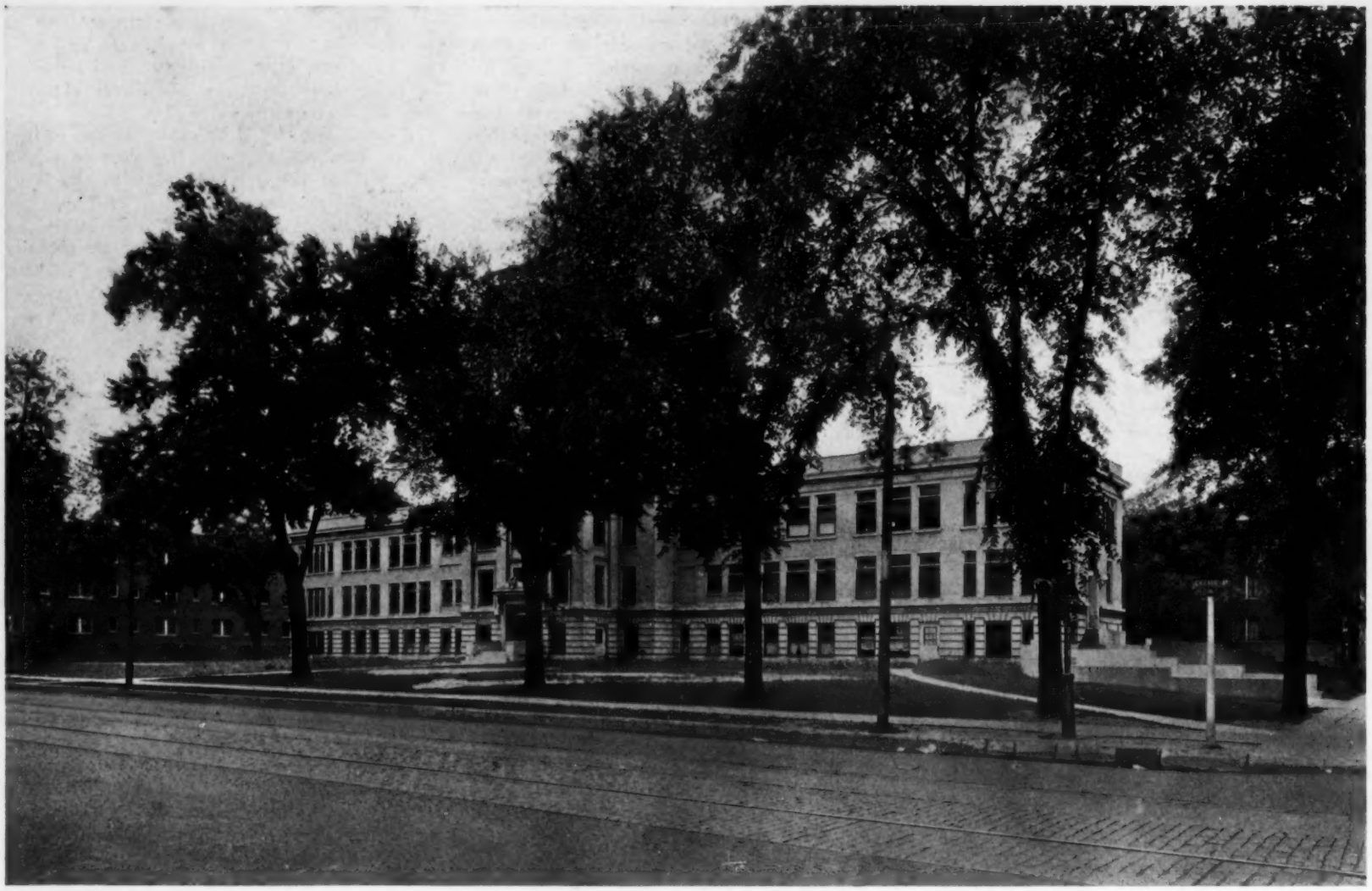
TABLE I. Distribution of Non-Athletes and Athletes According to Their Percentile Rank

Class-interval	Non-Athletes		Athletes	
	No. of Students	Per cent	No. of Students	Per cent
0- 4.99	4	.077	2	.003
5- 9.99	9	.016	3	.004
10-14.99	8	.014	4	.007
15-19.99	9	.016	4	.007
20-24.99	8	.014	4	.007
25-29.99	13	.024	9	.016
30-34.99	17	.031	8	.014
35-39.99	15	.028	14	.025
40-44.99	19	.035	14	.026
45-49.99	21	.039	18	.033
50-54.99	31	.057	23	.043
55-59.99	25	.047	17	.031
60-64.99	37	.069	30	.056
65-69.99	25	.047	35	.065
70-74.99	40	.074	33	.061
75-79.99	41	.076	47	.087
80-84.99	57	.106	35	.065
85-89.99	47	.087	54	.100
90-94.99	50	.093	94	.170
95-100	59	.112	87	.160

Everyone connected with school work has almost invariably heard the remark that athletes, as a rule, are older than non-athletes. Let us look into the matter as to the age of these two groups of students. They were distributed according to their chronological ages. It was found that the range of age was from 12 years 6 months to 22 years of age. A six month interval was used in the distribution of the students, and we found that the students were concentrated in the intervals 14-6—15, 15.1—15.55, 15.6—16.1. In these intervals the athletes had 65, 64, and 71 members. On the other hand the non-athletes had 83, 73, and 71. Not a very great difference in the number of students in the different intervals. From these intervals the two groups of students were about evenly distributed toward the lower and upper end of the scale. We find the distribution to be even throughout.

The next step was to find the median of their respective age. It was found to be 15.73 years

(Concluded on Page 155)



EXTERIOR VIEW, LYMANHURST SCHOOL, MINNEAPOLIS, MINN.

Lymanhurst, A New Type of Health Center

Samuel A. Challman, State Director of School Buildings for Minnesota

Open window schools for children who give evidence of anemia or malnutrition, making them susceptible to tuberculosis, are quite generally established as a part of the public school system in most of our larger cities. But a school which accepts children actually tuberculous and provides them with care, diet, treatment, and instruction is rather unheard of. There is, however, at least one such school, and until some one successfully proves the existence of another, Minneapolis claims the distinction of being not only the first to establish such a school but also the only city in the United States which now maintains such a school as a part of its public school system. This school is known as Lymanhurst, and has been in operation for the last five years.

The school had its inception in the philanthropic desire of two brothers, Geo. R. and Fred W. Lyman, who donated their old homestead for the purpose of establishing a pediatric institution as a part of the general hospital of the city. When the building was completed, however, in April, 1921, it was found impractical to open the institution as originally planned. The commissioner of health of the city of Minneapolis, Dr. F. E. Harrington, who is also the director of hygiene of the public schools, at once saw an opportunity for carrying out the benevolent policy of the donors and at the same time realize his own cherished desire to minister to a large number of children for whom there was practically no provision in either school or hospital. These were children with tuberculous lesions who could not be admitted to the regular open window schools, since these schools are prophylactic in character; neither could they be admitted to a sanatorium for tuberculous patients because they manifested no evidence of active, progressive disease. Excluded from both school and hospital, therefore, until such time that they either had overcome the disease or succumbed to it, their lot was one which called for new and untried remedial means for the amelioration of their condition.

Dr. Harrington with characteristic energy presented his plan of caring for these children both to the board of education and the board of public welfare. He convinced both boards of the desirability as well as the practicability of his scheme with the result that Lymanhurst was opened May 31, 1921.

MISS FLORENCE M. JAMESON,
Principal Lymanhurst School,
Minneapolis, Minn.

That Dr. Harrington was right in his contention as to the need of such an institution is amply evidenced by the fact that during the five year period in which this institution has been in operation, there have already been 800 children cared for in the school, 500 in the observation ward and 3,700 in the out-patient department. These 3,700 children have had a total of 10,300 examinations.

The school is operated jointly by the board of education and the board of public welfare. All the equipment for the observation ward and for the various rooms, including those for alpine lamps, x-ray machine, examination and laboratory facilities, preparation of foods and serving of meals, has been provided by the board of public welfare. A continuous twenty-four hour service is maintained for children in this department. The educational equipment and the teaching staff are provided by the board of education.

About 175 pupils can be cared for at one time in the school department and about 20 in the observation ward. The school is conducted partly in the main building and partly in portable buildings on the site. The principal of the school is Miss Florence M. Jameson. Seven teachers are employed, and the curriculum covers the kindergarten and the eight elementary grades. There is also a class for mentally subnormal children. In speaking of her school Miss Jameson says: "One might readily imagine that the pupils in this school would be pale, pitiful little beings, going listlessly about their tasks, but the fact is they are as bright and cheerful boys and girls as may be found in any school in the land. They thoroughly enjoy both their school work and the treatment they are

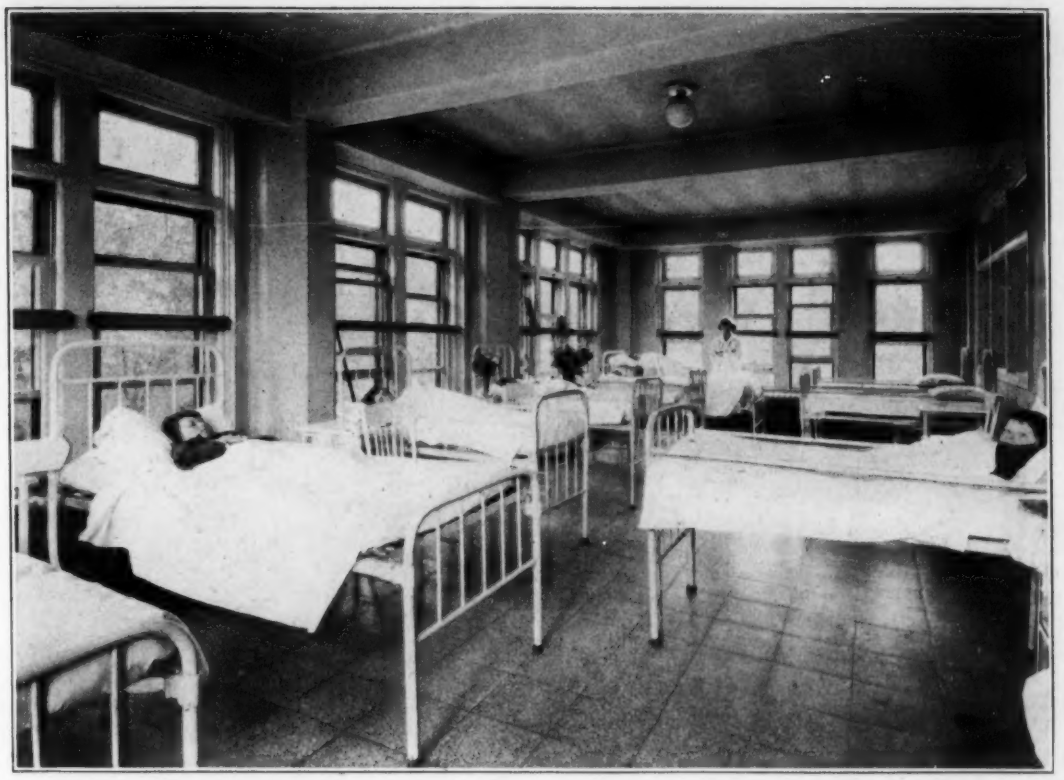
given by the medical staff. Many of those who are transferred to the Trudeau open window school or to the regular grades manifest their reluctance at leaving."

In the school the children are not only instructed, but they are also fed, and, when necessary, given treatment. Each child's temperature is taken daily and his weight is recorded bi-weekly. When a child runs a temperature above normal for two days in succession, his parents are notified and with their consent he is transferred to the observation ward for treatment. The daily routine of the school, with slight variations, runs as follows:

8:45 Bowl of cooked cereal and milk with a caloric value of 100.
9:00 Regular classes with necessary interruptions for examinations by doctors, treatments, showers, etc.
11:00 Recess—Outdoor play.
11:15 Regular classes.
12:25 Dinner consisting of soup, meat, vegetables, selected green salads, bread, butter, and milk, with a value of 900 to 1,000 calories. Sometimes a short after dinner speech.
1:15 Afternoon nap.
2:15 Regular classes — Nurses pass around and take each child's temperature.
3:15 Hot cocoa, dry cereals, milk and sugar with a value of 100 calories, after which the children leave for home.

After the school had been in operation for a year, Dr. Harrington in commenting upon the work that had been done made this rather significant statement: "Our studies so far have opened the door to knowledge and information that previously was all but unknown. Our efforts have been in a field heretofore unexplored, and the results of our investigations are offered to the world as the exploration of a virgin field. We must carry on in the future with no lessened effort, and with the knowledge at hand we are preparing to make further progress in the battle against disease. The adolescent child is a no less important factor in our economic life than is the child who has been the subject of our Lymanhurst studies. The door is open; the material is at hand. The classification of the next age groups is important; the discovery of the prevalence of tuberculosis infection in age groups, beyond those already carefully investigated, will be no less interesting and far more profitable than have been the endeavors of the past year.

"From the public health standpoint, tuberculosis infection means potential danger. We are progressing beyond the stage of attempting to protect a community from the spread of bacterial disease. From now on tuberculosis must be approached from the standpoint of economic life saving, as well as the prevention of infection spread; and it is this field of activity that we of Lymanhurst must accept and cope with."



TWELVE BED OBSERVATION WARD AT THE LYMANHURST SCHOOL, MINNEAPOLIS, MINN.

DR. F. E. HARRINGTON,
Lymanhurst School, Minneapolis, Minn.

Admission to the school is under the control of the commissioner of public health, and only such children are admitted as have been examined by the out-patient department or have been reported by private physicians as positive cases. Many children come for examination who have been advised to do so by school physicians, school nurses, nurses of philanthropic agencies and teachers. They are given the von Pirquet tests and x-ray plates are made. Their reaction to these tests determines whether they can best be taken care of in the open window school, also maintained by the board of education, Lymanhurst, or the sanatorium at Glen Lake, maintained by the county.

There are 27 physicians on the Lymanhurst staff rendering voluntary service and representing the following specialties: pediatrics, cardiology, gastroenterology, orthopedics, stomatology, otolaryngology, ophthalmology, endocrinology, neurology, röentgenology, hematology, anatomy and bacteriology. Each child is put through the clinic, and, after the specialists have made their diagnosis, all cases showing definite tuberculous lesions but manifesting no evidence of active, progressive disease are assigned to Lymanhurst. Here they remain until they can be sent to the open window school or to the regular school. Should a child develop symptoms of active tuberculosis, he is then transferred to the sanatorium.

OPEN WINDOW CLASSROOM.

ALPINE LIGHT ROOM.

LYMANHURST SCHOOL, MINNEAPOLIS, MINN.

INTERIOR VIEWS OF THE LYMANHURST SCHOOL, MINNEAPOLIS, MINN.
1. Office; 2. Rest Room; 3. Waiting Room; 4. Laboratory; 5. X-Ray Room; 6. Medical Examination Room; 7. Shower Room; 8. Kitchen; 9. Dining Room.

In speaking of the treatment received by many of the children in the school, Dr. J. A. Myers, chief of staff of the school says: "Since in this climate one cannot depend upon natural sun during the winter months Alpine sun lamps have been installed in a special room. These lamps have been so located as to flood the room with artificial sunlight. In this way several children can be exposed at the same time. The entire body is exposed to the rays for periods beginning with one minute and gradually increasing to one and even one and one-half hours per day. The length of time may be considerably decreased by bringing the lamps nearer the surface of the body. The lamp treatment serves four purposes, as follows: 1. A period of rest and quiet for the patient; 2. possible chemical effects of the rays; 3. an airbath, which is of recognized value in the treatment of tuberculosis; 4. the psychic effect, which must be taken into consideration, especially in the treatment of the older children.

"It is true that children between the ages of six years and the period of puberty show a remarkable tendency toward recovery. It must never be forgotten, however, that recovery is not always complete, but that the disease may remain in a partially healed stage for years, and when puberty or a later age is reached it may again become active and cause the decline or even death of the patient. It has recently been proved, quite conclusively in an experimental way, that small tuberculous lesions may completely heal, leaving little or no trace of their existence. It has been shown, further, that an individual who has a healed lesion may be reinfected at a later time in life."

The main objects of the work done in Lymanhurst have been summarized by Dr. Myers, as follows: 1. To diagnose the disease in its earliest stage; 2. to withdraw from the regular public schools all children who may be a menace to the health of others; 3. to build up the child's general health in an attempt to prevent a possible breakdown in later life; 4. to educate the children and their families, as well as the public, regarding the control, curability, and prevention of tuberculosis; 5. to give the tuberculous children such schooling as will enable them to develop into useful American citizens; 6. to endeavor to make scientific contributions which will aid not only in the local fight against tuberculosis, but also will help to hasten the day when tuberculosis will be eradicated from the human family.

POINTERS ON SCHOOL BUSINESS ADMINISTRATION

Useful Facts and Policies Brought out in the Discussion at the Convention of the National Association of School Business Officials

The city of Baltimore, Md., estimates that the average residence neighborhood contains 1,500 to 1,800 school children per square mile, who must be taken care of in elementary school buildings.

* * *

Delaware schools operate under what is known as a "flexible budget" and estimates of their needs are made on the basis of percentages of cost, figured on previous years' experience. It is stated that the cost of instruction, including salaries, books, and other instructional materials, is 80 per cent of the total cost of conducting schools.

* * *

Bridgeport, Conn., does not insure its school buildings against losses from fire, but maintains a sinking fund to be devoted to new construction and replacement, if a fire should occur in any of the school buildings owned by the district. The sinking fund was begun five years ago with an initial amount of $50,000, which was slightly in excess of the annual insurance premiums. Since then $10,000 has been added yearly. The city has had no fires.

* * *

The necessity of fire insurance on newer school buildings in large cities is questioned because of the following facts:

The new school buildings at present are chiefly built of fire resisting materials.

The structures are scattered over a large area.

The buildings are surrounded by wide, open spaces so that there is little danger of fire from neighboring buildings.

* * *

Some cities have dropped altogether their insurance on buildings of fireproof construction, within the fire limits where adequate fire protection is available.

DISTRICT MANAGEMENT AND CONTROL — FOUND WANTING

Arthur J. Peel, Boston

The tenacity with which the idea of district control and management of public schools is still held, in some of our largest and otherwise most progressive centers, is not easy to understand in view of the overwhelming array of evidence in favor of centralized control and management. Local politics, local pride, and local prejudice nearly always play a large part in any controversy over this problem, but local school government does not owe its existence in enlightened communities, solely and only because of limited vision and a lack of that broader conception of civic welfare in which the more fortunate and wealthier districts bear a portion of a burden which would be too great for other and poorer districts, and would, consequently, lower the standard of public education in those districts.

Perhaps the most outstanding example in the United States, of district school organization and government in a large city, is to be found in the city of Hartford, Connecticut. Notwithstanding the fact that the Connecticut state board of education has resolutely set its face against district government of schools, and is doing all in its power to eliminate this form of government from the state, there are nine towns in Connecticut that cling to this method of school government; but Hartford is the only city in the state that still operates on this system. The issue for, and against district control and management, has been almost an annual one for the past twelve years or more; and while there is a large and influential section of voters who are in favor of centralized control, under the city board of education, the strange and wondrous ways of ward politicians, have, so far, managed to pile up a few more votes in favor of retaining the present system.

In the face of these facts, what can be said of the Hartford elementary schools? This, that some of them are among the best schools in the country; that in some of them, the teachers are more highly paid than in many of the communities in which school teachers are paid above the average salary; and further, the degree of interest taken in the schools by taxpayers is such as to provide excellent proof that it is possible to get citizens thoroughly interested in their own schools. Of course this interest varies considerably; for instance one does not expect to find a great deal of interest in public schools where the amount raised per pupil per mill tax is only $3.08. In another district in the same city, however, the amount is $46.62; naturally the people of this district have awakened to what education means to a community.

Nine Districts in One City

Perhaps nowhere else in the country would it be possible to find such variety of standards in elementary schools; there are roughly about 24,000 children in these schools, and the estimated per capita cost per pupil varies all the way from $78.13 to $150.81—bear in mind this is for *elementary* schools *only*. The teacher cost varies from $48 to $75. When a family moves from Hartford to Boston, for example, and the children apply for admittance to a Boston school, the principal scratches his head, and with a worried look, says, "I'm afraid we'll have to give you a test before we can decide where to put you." However, let it be said with all fairness to the district committees and superintendents in Hartford, that while there is a serious lack of uniformity of plan of instruction, there is at any rate a unity of purpose, which is, to give the child the best education available; and the general standard of education in Hartford, attests the fact that this is being accomplished fairly well. At the same time we must bear witness to the fact that it is being done at a cost much in excess of what it would be if the nine districts with their committees and district superintendents, their clerks and treasurers, were consolidated into one administrative office, operating under one control, benefitting by quantity purchasing of supplies and equipment, and adequately but economically, financed.

It has sometimes been said that the most perfect form of government is an autocracy—if you can find the *perfect* autocrat. The alternative would seem to be—insofar as school government is concerned—a *small* board or committee, acting through a superintendent, both elected by popular vote. Hartford has 27 persons actively and directly responsible for the conduct of its schools, purchasing all supplies, except textbooks, hiring janitors and teachers, and building and equipping new schools. Forty-one people are directly interested politically in the control of the schools, and eighteen less directly interested; a total of 59!

It has been said that "the district system is neither the logical nor historical system of school control." It is, however, an *historical* system, and in many early communities it superseded the town or centralized control. Then there came a reversion to centralized control and management, as cities became larger and city and town government developed along lines which tended towards consolidation and economy of administration. The principle of decentralization of management and control has much to commend it, and is practiced by some of the largest industrial and commercial organizations in the country. The advocates for decentralized control of public schools, are, however, an ever-decreasing number. In England, district control does not exist today; in the West it is rarely to be found; in New England, with the exception of the nine communities and towns in Connecticut, it is practically a thing of the past. In the South it still exists in some places, and usually with much less reason to commend it, than exists in Hartford.

The Principals' Club

So that the reader may get a fair idea of the unique organization in Hartford, and some of the lessons to be learned from dual control of schools, the organization has been charted. Let me point out at once, one important feature: The high schools are under the jurisdiction of a high school committee elected for the city and not by districts. The efficiency of the Hartford high schools is high.

The dual system of school control creates a necessity for a liason office, and this provision is met in Hartford by the Principals' Club, which is an unofficial organization having no legal standing and consequently no enabling or administrative powers. Nevertheless, it is this unofficial club (which meets every two weeks), that furnishes the place and opportunity for straightening out many things that might otherwise lead to serious trouble and misunderstanding. It also provides a common meeting ground where the district superintendents—who also are school principals—can compare notes, and determine and decide matters on which uniform practice is desirable. It is also the one place where the city superintendent of schools can "get across" his own ideas, recommendations, and plans for closer coordinating of school activities, curricula, and policy. It is quite significant that the principals' club—which has no legal status and is entirely unofficial—has done more to bring out harmony in school government than anything else. This speaks well for the common-sense and breadth of vision of the district superintendents, and is an indication that the man is bigger than the system.

It will be observed that the direct control exercised by the board of education through the superintendent of schools, is limited to what are really auxiliary agencies in public education activities. In all other matters, the superintendent occupies the position of an advisory official, with certain supervisory powers which look important—on paper—but which are more or less anomalies, since the district committees are virtually supreme. Keenly sensitive to their prerogatives, the way of the superintendent must be one hedged with thorns. Hartford is fortunate in having as superintendent, Mr. Fred D. Wish, Jr., who is a prince of diplomatists,

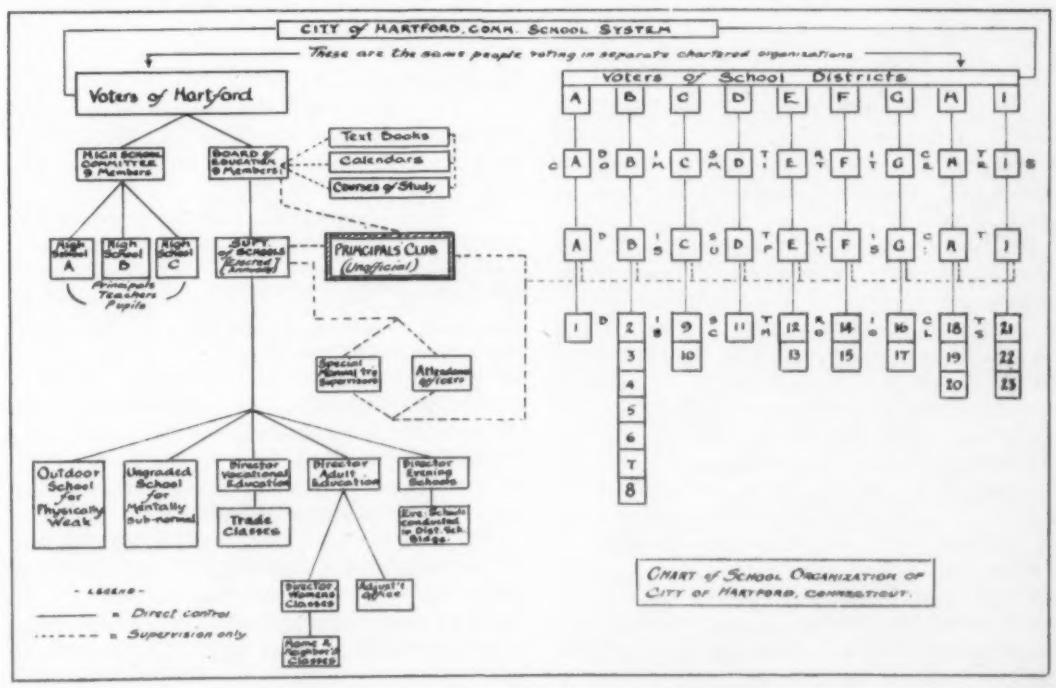


CHART OF SCHOOL ORGANIZATION OF CITY OF HARTFORD, CONN.

and somehow, or other, manages to get from, and to give a maximum of cooperation to, district committees and superintendents.

The Managerial Methods

But no degree of human excellence, generous forbearance, nor unselfish motive, will justify a system of school government that leaves loopholes for gross and serious managerial inefficiencies and wasteful methods. For example, in some districts the audit of accounts is so superficial that no check is made of costs, nor is there any way of determining whether the district office received what was paid for. As to the variation in costs between different districts, it is noted that this varies over 100 per cent for janitors; over 400 per cent for fuel, light and water; and over 400 per cent for supplies. Even the salary standards vary, and while in some of the wealthier districts the salaries of women teachers in the grades are the highest in the state, the standard in other districts is low. Another very unsatisfactory condition is the lack of uniformity of bookkeeping and accounting. The work involved in the superintendent's office when making up financial statements and reports for the state board and the federal government, is very much increased on account of each district maintaining its own particular system of accounting. It should be mentioned here, that though each district is independent and supreme in its own school government, it must report to the state board, *through* the superintendent of education; for this reason, all financial and cost reports, however unscientific in method of preparation, must be reduced to a common denominator and revamped in the office of the superintendent of education, before they can be transferred to the state authorities. Then it must be stated that much of the cost information which is so vital to efficient school management, is not available, at all, consequently it becomes a matter of *estimating* costs —a method which is always unsatisfactory, and often dangerous.

Nowhere is the disadvantage of decentralized control of school government and management more evident than in the purchase of supplies. Each district purchases its own supplies independently of every other district, consequently it happens that there may be nine separate purchase orders where one would have sufficed under centralized control; nine separate shipments, where only one would have been necessary. The possibility of taking advantage of special discounts for quantity purchases, is also greatly reduced under the district system. In the one exception to the general custom—that of books, which are purchased through the office of the superintendent of schools—the good results of quantity purchasing, contrast very noticeably with other classes of purchases. It must be remembered also, that each district committee, with its officers—clerk, treasurer, auditor, and rate-maker, changes every year, so that it is seldom that experience in the duties of the position is brought to bear on district management; this is particularly true where elections and appointments are subject to political influences in such a large degree. When this condition is contrasted with the experience and ability which is to be found in the office of the superintendent of schools, in Hartford, the conclusion to be drawn will be perfectly obvious. While the position of superintendent is subject to change each year, the permanent staff of the office is thoroughly experienced in routine work and policies, and is thoroughly capable of handling the work of twenty-three schools, probably with very little more expense than is required under the present system, whereby one district administers and manages eight schools. Needless to state, the overhead expenditure in the Hartford school system is considerably higher than in any other city in the east.

Since each district has its own rate-maker, there exists constant confusion and dispute due to differences between the rate made by the school rate-maker and that made by the city. There is, of course, a totally unnecessary duplication of work here, too, *for which the taxpayers pay.*

Why the Situation Continues

The fact remains, however, that, so far, the majority, presumably, are willing to pay for an expensive school system, unnecessary officials, and inefficient school government. Why? Two reasons suggest themselves; the first being that it is always difficult, if not impossible, to destroy the fear of a man who has paid his debts, of being linked in government with one who hasn't. The second is, the strong local pride in the excellence of schools, and a fear that city management might limit them in a generous scale of expenditure under which they now conduct their schools. These reasons are not to be disposed of with a wave of the hand, or a shrug of the shoulder; they are entirely pertinent to the case under criticism. Any solution that would lower the standard, as it is represented by the best school district in the community, would be of little value. When a city or a community is faced with this problem—and it is a growing problem in Hartford, claiming more and more public attention and discussion—a large responsibility rests upon the superintendent to prove by well-authenticated statistics and cost-figures, that the standard of *all* schools, in *all* districts, may be raised to the *highest* standard that is to be found under the district system, by equalized taxation which will be no higher than an average based on the tax rates, in all districts. There are those in Hartford who believe that by proper standardization, and the economies that would be effected by centralized control and management, this ideal is in the realm of practical politics. Each year this belief is growing, and the time is not far distant when Hartford will abandon a system of school government which has been weighed in the balances, and found wanting, in favor of a *business* management and control of its schools.

An Experiment in the Use of Tables and Chairs

Supt. H. A. Wood, Munising, Mich.

Like most school systems we have various types of fixed and movable seating. When it came time to purchase seating for a small new grade school, we were in doubt as to which type we would like to perpetuate. The thought came to me that we have, as a rule, provided school children with working conditions which they never find after leaving school, except in a few special activities.

An answer is hard to find to the question, "Why does a desk top slope when we, as adults and teachers, do not use the same kind?" Most school desk tops slope towards the pupil, while the school seat back is usually straighter than any other. If this is correct, then you and I, and all other adults must be working under great physical handicaps, since our desks have level tops and our chairs tilt backward. Many of our adjustable desks slope two ways after they are used for a time.

We decided to try tables and chairs. Most stock tables seemed rather unstable and light weight, and we had our tables made up as a special order. Each one has a top 18″ by 48″, and 1½″ thick. Legs are three piece, glued together, making them 2¼″ square. The entire table is made of oak, equipped with two drawers, and has a dark oak, waxed finish. Tables were all bought 30″ high, and cut to as many lengths as we needed (ten in all) by the manual training department. By doing this, we saved fifty cents per table, which the manufacturers asked for varying the height. This plan also allowed us to vary the height to fit the children who were to use them first.

The chair we wanted could be purchased in 12″, 14″, 15″, 16″, and 17″ heights only, so it was necessary to cut 12″ and 14″ ones to make 11″ and 13″ heights. It seems rather strange that chairs are hard to purchase in these sizes, since many children do not require exactly a 12″ or 14″ height of chair. In a few cases, we made a half inch variation, giving a wide range of sizes. Our conclusions are in accord with the article published in a recent issue of the School Board Journal, stating that school seats should be made lower.

The cost for two seats, or a table and two chairs, averaged about nine dollars per seat, which is somewhat less than the cost of the movable unit desks, and somewhat more expensive than ordinary fixed seats of adjustable or non-adjustable types.

The following advantages and disadvantages are listed by students and teachers after using this type of seating for three months in grades one to six. Students are seated two at a table, both facing the same way. The seating capacity of the room is the same.

Any disadvantages relative to purchase and expense have been mentioned, and there are still other physical disadvantages that need to be considered. The table rail must be 6½″ or 7″ high in order to allow space for drawers. With very small children, where the difference between table height and seat height should be about 9″, there is not sufficient clearance for leg movement in all cases. Usually we were able to get proper seating except in a few extreme cases. Even with a top of the depth mentioned, drawers cannot be made large enough to care for all books and materials needed above third grade. Upper grades are quite handicapped. Lack of storage space means time lost in transporting extra material to cupboards.

A check of these rooms having tables and chairs shows very few children incorrectly seated for height of chair and table. Of course, there are no misfits caused by the horizontal distance between chair and table, since each child can make this distance conform to his size and the type of work he is doing. There is some difficulty, of course, in finding two pupils of the correct size and disposition to use the same table. Also, it is difficult to have all bad boys in the front row as is sometimes desired. Although pupils seated in the center of their half of the table are nearly as far separated as in any type of seating, there is a great tendency for the two pupils at one table to slide their chairs toward the middle, and make it easier to whisper, copy, and borrow. The tendency to imitate and copy seems to be a bad feature, but while they see readily on one side, there is less opportunity front and rear.

Of noise there is undoubtedly more, but most of it is incident to work, the adjustment of chairs for best working position, or made in passing to and from their seats. Very little noise appears to be due to restlessness, fatigue, or a desire for activity and mischief making.

The teacher who has been in the habit of sitting in the seat with the pupil in order to help him will find that method impossible with ordinary chairs. This is a handicap, especially in demonstrating penmanship or assisting in drawing work. Teachers do not report disadvantages in other supervisory functions. In fact, they find aisles, which allow them to pass

(Concluded on Page 143)

The School Superintendent's Job

W. C. McGinnis, Superintendent of Schools, Revere, Mass.

This paper will present a discussion of the superintendent's work in a city of between 30,000 and 40,000 population. Many of the principles here laid down and many of the conclusions reached apply also to smaller cities and very much larger cities.

Some of the problems discussed are actual problems which have arisen from time to time in the city school system in which the writer is superintendent of schools. Other of the problems and some of the material included herein are from the discussions of a group of Massachusetts superintendents who met as a class group at Harvard during the winter and spring of 1925.

Evolution of the Office of Superintendent of Schools

The office of superintendent of schools represents an evolution. In the early days of the district system of New England it was customary for the school committees (sometimes called school directors, and still so designated in some of the New England States) to elect one of their members chairman and another clerk or secretary.

The secretary kept the records of the meetings, and in some instances authority to purchase certain things such as wood for fuel, lumber for furniture, etc., was delegated to him by the committee. In many school districts the clerk or secretary even in the first half of the nineteenth century, was to a considerable extent the executive officer of the school committee. In other districts, to the chairmen of the committees were delegated certain executive functions.

The duties and powers of the school committee in those early days were limited in scope because the public school system was in its infancy. There were no free textbooks and supplies. There was no furniture except that made in the shop of the local carpenter, or made by him or by the school committee themselves from lumber bought and delivered at the schoolhouse of the district. The school teacher was hired by the committee, and in many of the rural districts there was only one schoolhouse and only one teacher. It was the duty of the school committee, usually performed by the chairman or the secretary, to arrange for boarding places for the teacher, who "boarded around" among the homes of the pupils. This custom of "boarding the teacher around" was without expense to the teacher or to the district. The school committee visited the schools for purposes of inspection and to "examine the pupils." They also held teachers' examinations.

In most respects public school administration has advanced almost immeasurably since the days when "teacher boarded 'round," but in one thing at least the advance has not been so great as modern school administrators are prone to think is the case. City school executives and college teachers of school administration underestimate the degree of ability and business practice of the school committees of the old days.

Businesslike Procedure

I have personally examined the school committee records of several school districts. One record book which it has been my privilege to examine contains the records of School District No. 9 in Westfield, Vermont, and dates back to the 1830's. For observance of parliamentary procedure, for clearness, for brevity of language, for sound business principles, and for completeness, that record of school committee meetings might well serve as a model and guide for many of the school committees of our modern city school systems.

To illustrate the tendency of modern school committees to waste time on non-essential work, or details which should be delegated to the school committee executive there is presented the following record of the procedure by which a school committee in one of the largest New England cities purchased a piano in 1919-1920:

Red Letter Days in School Committee Meetings

The sum of $1,500,000.00 represents the approximate budget of the School Committee of Blank city for 1920. The sum of $1,000 is the approximate cost of a new piano for Central high school. The following dates show how cautiously the School Committee investigated the replacement of the old piano in the Central High School:

September 26, 1919—"Mr. Hill's communication having reference to the condition of the Central High School piano was referred to the Music Committee."

October 31, 1919—"The Music Committee was granted an extension of time for the consideration of the question of needed repairs on the Central High School piano."

November 28, 1919—"The Music Committee was given an extension of time in which to consider the question of purchase of the piano for the Central High School."

December 29, 1919—"The Board approved the recommendation of the Music Committee that an item of $1,000 be included in the budget to provide for the purchase of a piano for the Central High School."

January 5, 1920—"The offer of the Jackson Piano Company to furnish two pianos to schools at the rates in effect on January 1, 1920, this being a saving of about $22 per piano over the advanced rates to take effect at that date, was considered by the Board and referred to the Music Committee, with power to place an order if it seems advisable.

February 13, 1920—"The Member from Ward Three was authorized to confer with the Mayor with reference to a new piano for the Central High School."

February 27, 1920—"The Member from Ward Three reported that a new piano had been purchased for the Central High School and had been delivered."

How the School Committee Proceeded in Its Consideration of Need for Warm Lunches

September 30, 1921—"The question of providing a simple luncheon for the pupils of the Washington School, who because of the distance from the school are obliged to carry lunch, was referred to the Committee on Household Art and Science, with power."

October 14, 1921 — "Additional time was granted to the Committee on Household Science and Art to investigate the question of establishing a luncheon for elementary school pupils in the Washington School who remain at school during the noon recess."

November 11, 1921—"The Committee on Home Economics, to whom was referred the question of providing luncheon for pupils of the Washington School who remain at school during the noon recess, reported progress, and the committee was continued."

November 25, 1921 — "The Home Economics Committee was granted additional time for consideration of the question of providing luncheon for pupils of the Washington School who remain at school during the noon intermission."

December 9, 1921—"The Committee on Home Economics recommended that a warm luncheon be served at the Washington School for pupils who remain at school during the noon intermission, and the superintendent was requested to take up with the City Property Committee the matter of equipment."

About 1890 the New England district system gave way to the town system of schools and the several districts of a town became merged in the town system. About the same time the system of free textbooks was adopted. At once the office of school committee took on added responsibility, and more duties were delegated to the secretary. Records of school committee meetings were longer and contained more items of business procedure. The correspondence increased in volume. In some instances the secretary was paid a small amount for his services. Later the head teacher or principal in the larger towns was made secretary of the committee and to him were delegated some of the functions of the school committee, such as examining textbooks, visiting the schools, supervising the janitor work, or, doing it himself in some cases.

By a gradual process the head teacher not only became the secretary of the school committee and its executive officer, but also finally became the superintendent of schools.

The School Committee

No analysis of the superintendent's job can be made and no profitable study of the superintendency can be carried on without first considering the powers, duties, obligations, functions, and organization of the school committee. On the type and soundness of the school committee organization, and on its method of procedure depends to a very great extent not only the kind of a job the superintendency is, but also the answer to the question as to whether the school system is progressive and efficient or reactionary and wasteful.

The school committee should be an independent body of not more than seven members elected at large. School committees appointed by the mayor and city council are too much bound by the fetters of political considerations to allow the right kind of service. The school system of a city should be conducted for the benefit of all the people of the city. It should be a unit with no undue regard for sections or sectionalism.

The ward system of election of school committees is better than the appointive system, or rather, it is not as bad as the appointive system. The ward system tends to promote sectionalism and ward politics in school committee procedure. Votes and influence are traded and there is a tendency to subordinate the welfare of the school system as a unit to the ambitions of individual members to make records and to stand well with the voters of their wards for political purposes.

The school committee should be financially as well as politically independent of city hall, within the total amount of the annual school department budget. Whether or not the school committee should have the power and authority to determine the total amount of the school budget is a debatable and unsettled question of municipal finance. Traditionally the people hold the mayor and city council responsible for the tax rate. Up to the present time at least, I am not convinced that either the city as a whole or the school department would be benefited by dual authority and responsibility in fixing the tax rate. It is true that in those cities in which the school committees are financially independent, the percentage of the total tax which is devoted to school purposes is no greater on the average than in those cities in which the mayor and city council have the authority to determine the total amount of the school budget. This fact is often used as an argument in favor of the independence of school committees in finance. It can justly be used as an argument against financial independence because of this very fact, that in those cities in which the mayor and council are the authority the school departments on the average receive as large a percentage of the total as in the other cities.

Once the total amount of the school budget is determined, the school committee should have complete authority over its expenditures and should not be obliged to consult the city hall authorities in regard to transfers from one division of the budget to another.

Many city charters provide that the mayor shall be a member of the school committee. In some cities he is chairman by virtue of his

being mayor. In most cities in which the mayor is a member of the school committee he is a voting member.

The Mayor and the Board

The mayor should not be a member of the school committee. In cities in which the mayor and city council are the final authority in fixing the amount of the school department budget there are many good reasons why the mayor should not be a member of the school committee. The annual budget is prepared by the superintendent of schools and his assistants. It is then presented to the school committee for consideration and is finally adopted with such changes as the school committee may make. It is then submitted to the mayor and city council. In many cities the mayor has the power to reduce the budget of the school committee, and the city council may reduce but not increase the amount recommended by the mayor.

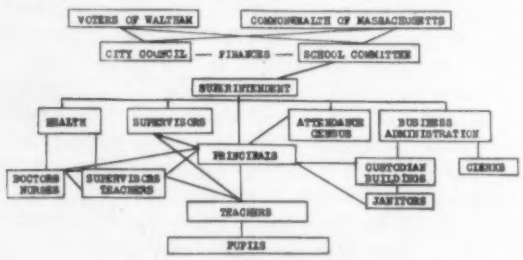
In those cities in which the mayor is well disposed toward the school department there have been no seriously detrimental results arising from the mayor's membership on the school committee. With a hostile mayor the results would be bad.

Another objection to having the mayor a member of the committee is the fact that professional and amateur politicians, political supporters, and personal friends of the mayor regard him as the chief dispenser of municipal favors. Most mayors do pay political debts. The mayor is not held responsible by the public for the quality of service rendered by the public schools, and for that very reason many mayors yield to the temptation of using their influence in the selection of teachers and other employees of the school department. The pressure brought to bear upon the mayor is hard to resist, and if he has an inclination to use his influence in favor of certain candidates for school positions, his presence at school committee meetings as a voting member is not conducive to good schools.

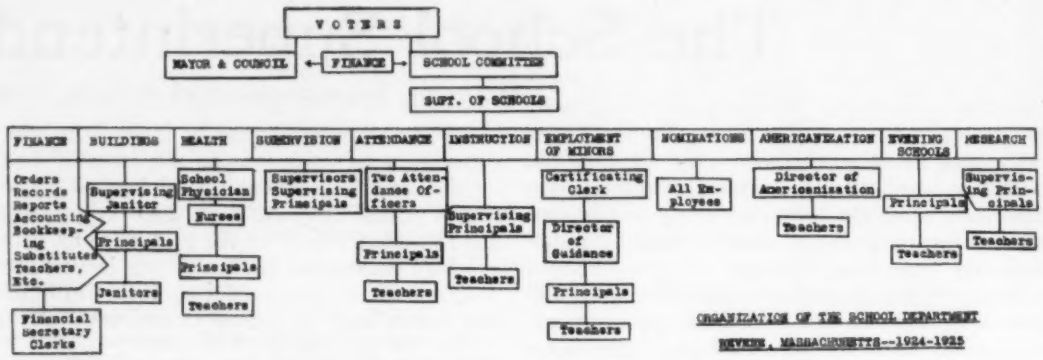
The weakest spot in the machinery of government of the American people is municipal government. This opinion was held by the author of "The American Commonwealth," and is a statement which is self-evident to students of the political history of America. Inefficiency and waste and, to a considerable degree, the misuse of political office for personal gain are characteristic of the administration of city governments. The national and state administration of government is much more free from the influences of bad politics than the administration of municipal government. Because of the reasons given, the school department should be removed as far as possible from city politics. Two charts of the organization of school departments are given here.

The school committee is a legislative body having general control over school affairs. It should have full general control over all phases of school administration including the choosing of school sites, the erection of school buildings, schoolhouse repairs, and the control and custodial care of school property.

The following is an extract from the report of the Special Committee on Education, appointment under authority of Chapter 88 of



A COMPACT TYPE OF ORGANIZATION IN A MASSACHUSETTS TOWN.



A TYPE OF ORGANIZATION FOUND IN MASSACHUSETTS.

the resolves of 1918 of the legislature of the Commonwealth of Massachusetts.

Control of School Plant

"Care, Construction and Repair of School Buildings: No uniform policy has yet been adopted in this State in the matter of the care and custody of school buildings. While in many city charters ample power in this regard has been given to the school committee, in not a few cities it rests with other departments of the city government. In the cities of Somerville, Worcester, Springfield, Taunton, Fall River, and Newburyport the custody, care and repair of school buildings, and even the appointment of janitors, are within the powers of the city council or superintendent of buildings or other city officials, and not in any way under the jurisdiction of the school committee. In Newton, Brockton, Lawrence, Malden, Holyoke, Gloucester and Haverhill, the school committee has the custody and care of school buildings, but all matters of repairs are in the sole charge of some other city department. In 23 cities the school committee has full authority over school buildings, including their necessary repair.

"It is self-evident that where the school itself is operated by one department, as the school committee, and the building which the school occupies is in charge of another department, there will inevitably result confusion and conflict of authority, and very likely friction and inefficiency. The school building is an essential part of the school organization; its cleanliness, its heating and ventilation, and its proper repair are all necessarily involved in the successful conduct of the school, and all these things should be managed harmoniously with the school itself, in order that the school may perform its function to the best advantage. This desirable harmony of action cannot be attained by separating and intrusting to several independent authorities these closely associated features of school administration. It is anomalous and illogical to hold the school committee accountable for the proper education of children, and at the same time to give it little or no authority over the buildings in which the children are taught; to charge it with the responsibility for adequate educational results, and yet to deny it control of factors which may seriously impair school efficiency. And conversely, it is equally unreasonable to clothe with power in the matter of the care and physical condition of school buildings any municipal body entirely unrelated to the problem of public education. Furthermore, the school committee has always available first-hand information of the condition of school property. It is the only department specifically interested in the school, and, more than that, it is charged with the duty of successful school administration. It therefore has the means of information and the motive that would lead to the prompt application of the proper remedy to any unsatisfactory condition. Where the care of school buildings is made the business of any other municipal agency, this direct means of information and this incentive to immediate action are alike lacking. It is easy to see that unfortunate delays and other eventualities no less undesirable cannot fail to result. The welfare of the schools and their highest efficiency require that all conditions should be favorable; that all factors entering into the conduct of the school shall co-operate in perfect accord, and this, it is clear, can be accomplished only under one central authority,—the school committee.

"The same considerations apply, to a great degree, to the *selection of school sites* and the *construction of new school buildings.* The school committee alone is familiar with the distribution of the school population, with the adequacy or inadequacy of school facilities, with the school needs demanding present attention, and with the most effectual methods of meeting them. The school committee knows, as does no other municipal department, the nature of the school accommodations required, and what the size, character and content of the new buildings should be. It is fair to say that they are at least as competent to make the practical application of all this detailed knowledge, and to select a site, to employ an architect and to supervise the erection of a building as is the customary committee of a city council or other city officials to whom these matters are now intrusted under the provisions of various city charters. We believe that efficiency, and even economy would be promoted by conferring these powers upon local school committees, and that the buildings erected would, in point of location and general suitability, meet school requirements much more satisfactorily than is likely under any other system."

(To be Continued)

WOMEN AS EDUCATIONAL LEADERS

Bertha Y. Hebb

The number of women holding positions largely of an administrative character, as listed in the 1926 Educational Directory issued by the Interior Department through its Bureau of Education, is proof of the fact that woman's endeavor in the field of education is growing more and more broad. In this directory may be found women who are college presidents; presidents of junior colleges; heads of departments of education; presidents or deans of schools of law, medicine and pharmacy; presidents of institutions for the training of teachers; presidents of international associations of education; state superintendents of public instruction; and city and county superintendents of schools. In each of these capacities, it may be stated, woman is proving a success, in that there has been a demand for more and more of her service.

Ten years ago 24 of the colleges and universities of the United States were presided over by women; today there are more than twice that number, or, to be exact, 53 women are filling this position. Ten years ago there were 30 women presiding as heads of departments of education; now there are 84, the number again being more than doubled.

In 1916, twenty-six women were employed as city superintendents of schools; according to the 1926 Educational Directory there are at the

(Concluded on Page 155)

The N. E. A. and the Sesqui-Centennial

If it can be said with any force of truth that the summer N. E. A. meetings have in recent years declined in program offerings, and in attendance as well, it must also be said that the Philadelphia meeting has upheld the best traditions of the time-honored organization. The program was exceptional in quality. The attendance was large. The delegate system has the tendency to fill the general meeting halls.

There was a degree of appropriateness in locating this year's meeting of the National Education Association in Philadelphia. Here the Nation is celebrating its one hundred and fiftieth birthday through an industrial exposition. At the same time Philadelphia is the birthplace of the N. E. A. where under the name of the National Teachers' Association it made its first appearance in 1857.

Then, too, the Sesqui-Centennial is a great educational enterprise. It exhibits the products of education as exemplified in factory and farm, forest and mine, school and home. The Nation's progress in every field of endeavor is presented.

The Challenge of Childhood

Child welfare, mental, moral and physical, ran like a red line through all the program discussions. The keynote address by Mary McSkimmon, president of the association, was entitled "The Challenge of Childhood." Other speakers dwelled upon child protection, child promotion, and child interests. Discussions along administrative lines, too, proceeded from the standpoint of child development.

There were also speakers who dug deeply into the economic side of school administration. Edwin C. Broome, Philadelphia's school superintendent, held that if the constantly growing public demand upon the schools is to be met, better financial support must be provided. Francis G. Blair, the Illinois state superintendent, dealt with the subject of taxation for school purposes and urged that the average taxpayer must get a more liberal angle on the subject of school support. Dr. Broome had in mind the city school systems while Mr. Blair contemplated the rural school problem.

The opening meeting was held at the new auditorium located on the Sesqui-Centennial grounds. Mayor W. Freeland Kendrick, State Superintendent Francis B. Haas, and President William Rowen of the board of Education, extended greetings. The response was made by the president of the association, Miss Mary McSkimmon, who presided with womanly dignity and cordiality. Superintendent Haas departed from the purely felicitous and entered upon a serious discussion of modern education problems. The feature of the evening was a discussion by William M. Davidson, superintendent of the Pittsburgh schools, on what Pennsylvania has contributed to life of the child. He was incisive and eloquent.

Double Header Sessions

The general morning sessions were divided into sections A and B, and held simultaneously at the Academy of Music, the Forrest Theater, and the Garrick Theater, all located in the heart of the city. The general evening sessions were held at the Auditorium, located on the Sesqui-Centennial grounds. The business sessions ran simultaneously with the general educational sessions.

The presiding officers of the forenoon sessions were C. B. Glenn, superintendent of Birmingham, Ala.; J. M. Gwinn, superintendent, San Francisco, California; Jesse H. Newlon, superintendent, Denver, Colorado; Olive M. Jones, principal, New York City; Carroll G. Pearse, Milwaukee, Wisconsin; John A. H. Keith, president state normal school, Indiana, Pennsylvania; E. Ruth Pyrtle, principal, Lincoln, Nebraska; Fred M. Hunter, superintendent, Oakland, California; Thomas E. Finegan, Washington, D. C.; Jessie M. Fink, Principal, Grand Rapids, Michigan.

MISS MARY McSKIMMON, PRESIDENT, AND MR. JESSE H. NEWLON, FIRST VICE-PRESIDENT OF THE N. E. A., AT THE PHILADELHPIA MEETING.

Miss McSkimmon presided at the business and some of the evening sessions. Some of the chairmen indulged in long introductory speeches while others were brief and to the point. C. B. Glenn made a hit when in the middle of a program he asked the "fans" to rise and stretch and then introduce themselves to their neighbors. The buzz and chatter that followed demonstrated that the social side of convention life had been awakened.

At one of the evening sessions Superintendent William McAndrew of Chicago, delivered an address on the Declaration of Independence and the American School. Without resorting to manuscript, Mr. McAndrew spoke for nearly an hour voicing a masterpiece in thought and diction. He dwelled upon the equality clause in the Declaration holding that it revolutionized the purpose of education. The old time theory made for inequality in that it sought an intellectual aristocracy. The modern conception is that the school must foster equality of opportunity in the race of life.

One of the surprises of the convention was the advent of Norman Beck, a Wall Street man, who was booked to tell about the New York Stock Exchange. He spoke in the New York street vernacular and in a series of stories demonstrated that the Wall Street lad is taught to be honorable and self reliant, and that the American teacher should become the friend and advisor of the American boy.

Department of Education Supported

The pre-convention newspaper stories contained an interview with Secretary J. W. Crabtree who made an attack on Dr. Nicholas Murray Butler, stating that the latter in nowise reflected the attitude of the American teachers on the prohibition question.

Miss Mary McSkimmon, president of the N. E. A., gave out an interview to the press in which she was credited with the statement that "the United States is the laughing stock of other nations because it as yet has no national department of education." Thereupon the Public Ledger, a leading daily newspaper, remarked: "We are inclined to the opinion that Miss McSkimmon overestimates the sense of humor and underestimates the extent of political information of the other nations. It would be as reasonable for us to laugh at France because every time the Premier is defeated in Parliament he has to resign, as for France to laugh at us for not having a Secretary of Education in the Cabinet."

The editor then gave his reasons for opposing the proposed department of education and closed by saying: "The present bureau of education can do all that the federal government has any business to do."

At one of the business sessions, Prof. George D. Strayer analyzed the Curtis-Reed bill now pending in Congress, which calls for a department of education with a secretary in the President's cabinet. He made a plea for support "back home." Miss Charl Williams, contended that the bill does not invade state rights or substitute federal for state control of schools. The association reiterated its support of the measure and voted to continue the legislative committee.

Mrs. A. H. Reeve, President of the National Congress of Parents' and Teachers' Association, defined the principles and ideals of the parent-teacher movement, and told of the tremendous growth of the organization throughout the country. The movement has become a fixed factor in the educational life of the nation. It is helpful and cooperative in service and does not seek to meddle with school administrative affairs.

New Type of Art Museum

In reporting on the subject of cooperation between schools and museums Henry Turner Bailey, director of the Cleveland School of Art, outlined in an interesting manner the newer type of art museum. "There are now sixty museums which deserve the name" he said. "The sixty-first museum cannot hope to compete with the other sixty. All the money in the world could not purchase the treasures of the Vatican, the Louvre or the British Museums. Therefore the newer museum, in order to be of service, must be planned, orientated, and equipped upon new lines.

"We propose in Cleveland to construct a building 600 feet long," he continued, "which shall show the world's progress in architecture, in painting, and in the sciences. There will be reproduced in miniature the earliest habitation known to man to the giant skyscrapers of the American city. Copies of paintings of every period will be shown. The achievements of science from the simplest to the most complex will be demonstrated. The walls and ceilings, and the floor space, will be marked in periods so that the student will secure a historic visualization of human progress from the dawn of civilization to the present time. Such a museum is not only possible but will prove of immense value as an educational institution."

The progress made in the direction of homes for retired teachers was reported upon by Miss Olive Jones. While sites for such a home or homes, and some donations, have been offered, Miss Jones has experienced some difficulty in securing enough funds for preliminary propaganda labors. It will require considerable capital to establish these homes and to maintain them. With a widened appreciation of their beneficent purpose it is believed that eventually sufficient aid will be extended.

Miss Jones has proposed a plan of organization for such states in which a home for retired teachers is being contemplated. She is confident that the necessary support for the propaganda labors will gradually come and that liberal endowment will follow with the lapse of time.

Eminent Program Talent

Some of the old time familiar figures were on the scene. That vigorous champion of popular education, Albert E. Winship, made several interesting talks and greeted right and left his many friends. Educational leaders of the type

of Edwin C. Broome, William M. Davidson, John H. Finley, William B. Owen, Thomas E. Finegan, Jesse H. Newlon, William McAndrew, Willis A. Sutton, George D. Strayer, J. O. Engelman, R. G. Jones, Frederick M. Hunter, Francis G. Blair, Robert L. Cooley, Augustus O. Thomas, John W. Withers, Henry Turner Bailey, John J. Tigert, Randall J. Condon, William C. Bagley, Olive M. Jones, Sarah Louise Arnold, and others of equal rank, participated in the program.

The allied organizations were well represented. They included the following: American Home Economics Association, National Association of Visting Teachers, National Congress of Parents and Teachers, National Council of Geography Conference, National League of Teachers' Associations, National Organization of Secretaries of State Education Associations, National Vocational Guidance Association, and School Garden Association of America. There were also conferences on art education, junior high schools, lip reading, music, school publications, etc. The meetings of state delegations at breakfast, luncheon, and dinner occasions were quite numerous.

The business sessions were conducted with order and dispatch. The old time academic discussions have given way to constructive direction. Committee reports are tersely framed and the comments and suggestions from the floor were in the main brief and to the point.

Election of Officers

The Illinois delegation came on a train known as the "Francis G. Blair Special." The delegates wore badges bearing the portrait of Mr. Blair. They sang a campaign song which ended with the refrain "The West wants Francis G. Blair." The delegates urged the name of Mr. Blair for N. E. A. president.

The other candidate for the presidency was Uel W. Lamkin of Missouri. Mr. Lamkin is

MR. FRANCIS G. BLAIR,
President-Elect, National Education Association.

the president of North West Missouri State Teachers' College. His supporters distributed cards at the meetings, bearing his portrait and characterizing him as an educator of ability, vision, and leadership.

The Blair forces were equally active in distributing campaign literature in which a biographical sketch of Illinois' favorite son was presented. The balloting began on Thursday and continued until Friday when the results were announced. Only delegates were permitted to vote. The result showed that Francis G. Blair had received 523 votes and Uel W. Lamkin 457 votes. The vice-presidents for the coming year are Ira T. Chapman, superintendent of schools of Elizabeth, N. J.; P. P. Claxton, superintendent of schools in Tulsa, Okla.; Seldon M. Ely, supervising principal of the Gales school, Washington, D. C.; Jessie M. Fink, principal of the Palmer school, Grand Rapids, Mich.; Harold W. Fought, president of the State Teachers' College, Aberdeen, S. D.; Florence M. Hale, state agent for rural education, Augusta, Me.; Arthur J. Matthews, president of the State Normal School, Tempe, Ariz.; Mary McSkimmon, principal of the Pierce school, Brookline, Mass., and outgoing President; Claude W. Sandifur, head of the science department at the Lankership (Calif.) high school; Helen B. Shove of Minneapolis, Minn.; Mary Ulen, a teacher of Portland, Ore., and Sue M. Powers, superintendent of schools, Shelby County, Tenn.

Henry Lester Smith, dean of the school of education at Indiana University, Bloomington, Ind., was reelected treasurer of the association.

Uel W. Lamkin was elected to serve on the board of directors and Miss Mary McSkimmon, retiring president, automatically became the first vice-president. It was believed that the next meeting would locate at Seattle, Washington. Atlantic City, N. J., and St. Louis, Mo., were also bidders for the meeting.

The resolutions adopted affirmed faith in competitive athletic sports, endorsed child labor protection, the Curtis-Reed bill, a campaign for the abolition of illiteracy, the literacy test for foreign born voters, the denial of the privilege of the mails for obscene literature, the improvement of the status of the teacher, greater public funds for education, international peace and good will, abolition of discriminating postage rate on books, and a teaching of respect for law.

A resolution commemorating the birthday of Benjamin Franklin, January 17, was postponed for action until next year. Frederick Hunter characterized the same as being "excellent in spirit but dangerous in practice," in that it tended towards more holidays.

Fiscal Statements Showing Indebtedness

Fred Engelhardt, University of Minnesota

One has only to read the current literature in the field of public school finance to appreciate the general concern regarding the increase in public school indebtedness. Debt is a relative thing and has real significance only when considered in relationship to the general financial conditions of a local school system. To be apprehensive about the debt situation is one thing, but it is of more importance that steps be taken to develop a constructive plan for the amelioration of the situation if it is found to be unsatisfactory.

Management in public education, as in all other enterprises, will find occasion to finance certain aspects of the business through borrowed capital. There are convenient times when such a practice is not only the best policy to pursue, but the most economical plan to follow. When the conditions of indebtedness in a local system are not as they should be, the solution is not through criticism of the principles of borrowing, but rather through an investigation of the policies and practices followed by the local school authorities in the application of those principles.

There are probably few business procedures in connection with the financing of a local school system which may result in more disastrous financial conditions than those connected with poorly managed debts. The nature of the transactions, the ease with which they can be currently concealed from the public, and the failure to adequately report on the actual financial conditions of debt, often create a plight which may permit temporizing with circumstances to avoid or postpone the possible consequences in the hope that "something might turn up." Unsound financial conditions due to faulty debt policies, have a long time effect, and are frequently difficult to adjust without restricting the regular school work.

Need of Fiscal Statements Regarding Debt

There are three ways in which unsatisfactory financial conditions due to debt can be avoided. These may be summarized as follows: (1) by improvements in management, (2) by adequate accounting procedure, and (3) through proper fiscal statements setting forth facts accurately and clearly. The latter is dependent on the second and the first on the last, for without facts the school authorities cannot be expected to act intelligently.

The time when the necessary facts should be available depends upon the time when they are needed. The form, arrangement, and content of statements reporting facts concerning indebtedness should comply, in so far as possible, to the usual accepted conventions. These are factors which management must determine.

Statements of Bonded Debt

Because of the nature of bonded indebtedness and its relationship to public school property, the balance sheet does not clearly present the financial conditions due to such debt. In fact, property values should not bet set up as an asset in the balance sheet of a school district. The reasons for this were pointed out in a recent issue of this journal.[1] On this account separate statements concerning bonded debt must be planned. The report is to be prepared in the usual manner, with a title somewhat as follows: "*Statement of Bonded Indebtedness As At (date).*"

The horizontal columns in the statement are then arranged to record data pertaining to the following items:

1. Authority and Purpose of Bond Issue. (Clear, accurate reference to minute-book and such other record of authorization.)
2. Date of Issue.
3. Amount Authorized. (If amount authorized was not sold, footnote should indicate fact.)
4. Kind. (Sinking fund or serial.)
5. Interest Rate.
6. Annual Interest Charge.
7. Amount Outstanding. (Beginning of fiscal period.)
8. Amount Redeemed During Year. (As per bond agreement.)
9. Amount Required to be Paid into Sinking Fund During the Fiscal Period.
10. Amount Paid Into Sinking Fund During Fiscal Period.
11. Total in Sinking Fund.
12. Amount Outstanding. (Close of fiscal period.)
13. Debt Balance. (In case of sinking fund bonds the entry will be represented by the amount outstanding less the sinking fund accumulation.)

In the *vertical column* each bond issue should be listed separately. Totals for all bonds and for all horizontal columns should be given at the bottom of table.

[1]Engelhardt, Fred: The Balance Sheet in Public School Reports, Aug., 1925, American School Board Journal.

Sinking Fund Statement

When bond issues are of the sinking fund type the following additional statement is suggested. The legal requirements for sinking funds are not the same in all states, and each bond issue should have a distinct fund, the assets of which are restricted for the redemption of one particular issue. For this reason the statement should indicate clearly the financial status of each such fund. The horizontal columns in this statement should include:

1. Authorization and Purpose.
2. Total in Fund. (Beginning of fiscal period.)
3. Transfers to Fund During Years.
4. Interest on Fund Investments and Bank Balances. (During fiscal period.)
5. Total in Fund at Close of Year. (Cash and investments.)
6. Amount that Should be in Fund According to Requirements.
7. Balance. (Balance in fund in excess of requirements.)

This statement should be followed by a tabulation of all securities held, giving a description of the investment, the amount, and the book values.

Important Funded Debt Ratios

The debt situation in a local school system may not remain the same year after year. On this account it will be convenient to have certain facts in comparable form. There are certain ratios which have a significant bearing upon the debt situation and which lend themselves admirably to this purpose. These ratios may have to do with the limitations of debt, and such other important aspects, the trends and variations of which may be of real importance in the analysis of financial conditions.

The gross debt of a school system may be limited by law.[2] The limit of indebtedness established is usually fixed in terms of the assessed valuations of taxable property. Doughton,[3] in a study of 161 school districts in Pennsylvania, shows the following distribution of these systems when tabulated in regard to the ratio of indebtedness to the assessed values. The median debt ratio for this group of school districts was found to be 2.18. This ratio expressed for a period of years is a helpful guide in that it shows the school authorities the tendency of the local bonded debt.

TABLE 1

Distribution, in 161 School Districts in 12 Selected Counties of Pennsylvania, According to the Ratio of Debt to Assessed Valuation. School Year 1921-1922.

Ratio of Debt to Assessed Valuation	Number of School Districts
Less than 1.00	36
1.00—1.99	39
2.00—2.99	31
3.00—3.99	15
4.00—4.99	16
5.00—5.99	8
6.00—6.99	12
7.00 and over	4
Total Districts	161

The bonded indebtedness ratio may be expressed as follows:

$$\text{Bonded Indebtedness Ratio} = \frac{\text{Outstanding Bonded Debt}}{\text{Total Assessed Valuations of Taxable Property.}}$$

A second significant ratio is the quotient of (A) the total current transfer to sinking funds, plus the annual bond interest and principal payments divided by (B) the total current expenditures.

$$\text{Current Funded Debt Cost Ratio} = \frac{A}{B}$$

Total current debt cost ratio would have the same denominator, but the numerator would include the interest payments on temporary loans. This ratio is deserving of consideration because it points out an important relationship between annual debt cost and the cost of the current educational program. It is to be observed that the item of debt service is not included in the denominator. The numerator represents the annual plant payments, in terms of interest and repaid borrowed capital, and the ratio is an index of the plant cost to current costs. If all bonds were serially paid and if payments were so distributed that each year paid its proportionate share of the total plant cost, the ratio would represent a true relationship between the annual cost of the plant program and the current educational program.

Relationship Between Debt Plans and Current Educational Programs

In practically every school system there is a maximum desirable or possible annual school tax levy. The upper limit may be established in law or through current local public opinion. In either case to go beyond a desirable maximum may undermine the financial condition of the district, because of the illegal practice or the loss of public confidence. The plant cost, when viewed in terms of debt to be redeemed, becomes in reality a charge fixed in the amounts to be paid to meet the annual bond obligations. With a given maximum desirable tax levy and this annual *fixed debt charge*, there remains a balance which represents the upper limit of funds available for current expenditures.

The desirable maximum will be modified with changes in the local wealth, and interest in public schools. If the plant cost is kept at a consistent minimum the balance for current needs will always provide amply for a constructive, progressive educational program. If the

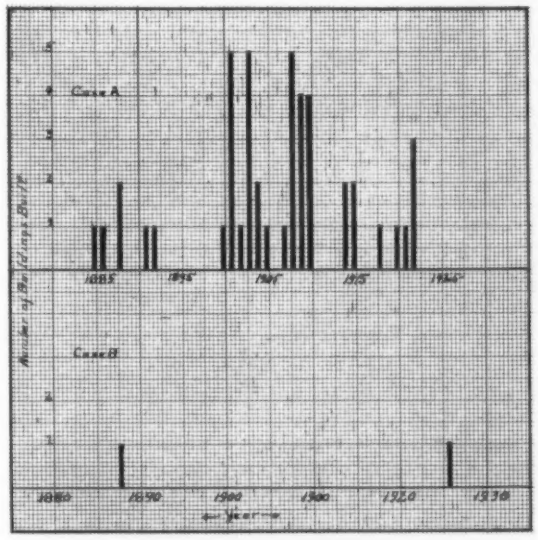


DIAGRAM 1. CONTINUOUS AND PERIODIC BUILDING PROGRAM

Case A illustrates a city where a continuous building program is a prerequisite to satisfactory business administration of the schools. Case B shows a smaller community in which a school building is built once in a generation.

plant program is not intelligently planned and the building expenditures are allowed to accumulate, then the current educational program may be required to bear the burden. This may result in undesirable curtailments in the educational offering to the child. Where building needs are periodic (See Diagram No. 1), rather than continuous, the debt program can be graduated in order that annual payments are relatively small when a new building enterprise is contemplated. A study of Diagram No. 2 will reveal many interesting possibilities as the line AB is conceived as changing from its horizontal position.

Case Studies

This relationship may be better illustrated by the following selected cases. They were chosen because they exemplify extreme conditions which may at times confront school authorities.

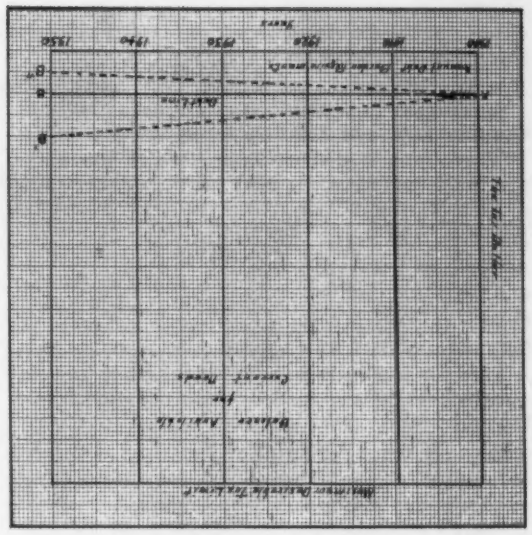


DIAGRAM 2. RELATIONSHIP BETWEEN CURRENT AND PLANT PROGRAM COST

The tax dollar represents the maximum desirable tax levy for any one year. The line AB represents the fractional part of the dollar required to meet interest and principal payments on outstanding bond issues. If these payments are not equally distributed the general tendency is AB′ in which case the balance available for current expenditures may be materially restricted. AB″ represents the desirable direction of the debt line where building needs are periodic.

Case I. This case represents a rapidly growing small community with a large outstanding bonded debt. The fact that the school population is growing fast is an indication that a new school will be needed in the near future. In this case the taxes are already high and are causing complaint. With the fixed debt burden as shown in Table 2, it is quite obvious that the current educational program must be restricted if bonds and interest are to be paid each year when due. Observe that the ratio of annual debt payments to total current needs is increasing. It has practically doubled during the last four years.

TABLE 2

Relationship Between Current Budgetary Needs and Debt Series Requirements. Case I.

Year	Annual Cash Requirements: Current Budget	Debt Service	Total	Ratio of Debt Service to Current Budget
1923	$26,447	$ 6,200	$32,647	2.32
1924	39,443	14,363	53,806	3.60
1925	42,720	15,613	58,333	3.65
1926a	43,200	25,563	68,763	5.90
1927	.....	25,273	.....	....
1928	.....	29,983	.....	....
1929	.....	29,455	.....	....
1930	.....	31,928	.....	....
1931	.....	33,205	.....	....
1932	.....	33,383	.....	....

a. To plan the current budget with this increase in debt burden is no easy task for the school authorities.

Case II. The following facts have been taken from a recent survey report of a well established city. It is to be observed that budgetary data for years subsequent to 1926 are not available. The increase in mill tax required to meet the debt service payments when due will force the superintendent to plan the current educational program with great care. Otherwise progress cannot be made without serious and vigorous complaint against tax increases and the debt service obligations cannot be met in accordance with the agreements made when bonds were issued.

TABLE 3

Relationship Between Current Needs and Debt Service Requirements. Case II.

Year	Annual Cash Needs: Current Budget	Debt Service	Total	Annual Mill Tax Levy: Current Budget	Debt Service	Total
1923	$558,545	.....	$558,545	11.3	...	11.3
1924	562,168	.....	562,168	12.4	...	12.4
1925	651,130	$ 66,847	717,977	13.1	1.4	14.5
1926a	675,000	103,920	798,920	13.8	2.2	16.0
1927	.....	102,493	.....	....	2.2	....
1928	.....	102,065	.....	....	2.1	....
1929	.....	121,638	.....	....	2.6	....
1930	.....	130,210	.....	....	2.7	....
1931	.....	103,783	.....	....	2.2	....
1932	.....	141,855	.....	....	3.0	....
1933	.....	138,028	.....	....	2.9	....

a. One can readily contemplate the increases in budgetary needs and the resulting increase in tax rate. That the school budget must be prepared for more than one year in advance, if debt service is to be adequately anticipated, is quite obvious.

(Continued on Page 143)

[2] Foulkes, J. G.: School Bonds. Bruce Publishing Co.

[3] Doughton, Isaac: Evolution of Public School Bonded Debt in Pennsylvania. Adapted from tables on Page 88-92—Philadelphia.

The Safetyfier

J. M. Robb, Heating Engineer, Peoria, Ill.

Safetyfier: one who keeps a school or other building safe and sanitary.

There was a discussion last May among a group of delegates to the Toronto convention of the National Association of Public School Business Officials. It centered around such projects as training schools for school janitors and painting boiler rooms white. One of the delegates, who is a school official in one of our big cities, classed all such effort as pure "bunk."

This is a significant attitude, one that is widely held in the face of existing conditions. Reports from salesmen who constantly visit schools in many parts of the country seem to indicate that the advance in school building construction has not been accompanied by a corresponding advance in school building care and maintenance. There is a wide gap between the working conditions and cleanliness in school buildings and the importance of the work carried on in these buildings.

We all recognize that education is more than schooling. Its purpose is to create the right attitude of mind toward life. Education is experience. But how can we recognize this and still fail to recognize the need of clean, orderly, sanitary conditions in our schoolhouses, as well as the need of intelligent, efficient operation of schoolhouse equipment?

One of the most frequent topics of discussion among consulting engineers and contractors, interested in the heating and ventilating of school buildings, is the lack of interest or training in the men who operate the equipment. The author's experience in this field covers nearly thirty years of schoolhouse work, over an area including nearly all of the United States, and part of Canada. He has learned a great deal from consulting engineers. He has learned more from heating and ventilating contractors and their mechanics. But by far the greatest part of his useful knowledge in this line of work has come from the faithful, earnest men who were too often expected to deliver results from equipment designed by engineers who lacked adequate knowledge of schoolhouse requirements, or erected by mechanics who lacked understanding of the results the equipment should deliver. In many instances buildings worth over a half million dollars, with mechanical equipment valued up to a hundred thousand dollars or more have been found entrusted to the care of some stationary engineer, steamfitter, or other mechanic whose only training was the knowledge of his trade and more or less experience gained from the construction mechanics. These and other experiences warrant the statement that among school officials, with a few notable exceptions, there is no appreciation of the significance and importance of employing trained men to care for the property under their administration.

In the first place, we should have long since changed our conception of what the janitor's work is and what qualifications are needed for it. The modern public school building is no more like the old schoolhouse than the automobile is like the one horse shay. With progress new and bigger problems have been encountered. When the automobile came into general use, it was immediately comprehended that a new class of mechanics was required. It did not take long to convince everybody that the finest carriagemaker, hostler or veterinary was of no value for the duties of driving and maintaining an automobile. Specially trained men were required for that purpose. So it is with modern school construction. While not as visibly, it has progressed as radically over old methods of construction as the automobile, but little or no attempt has been made to adequately train the men expected to maintain the improvements. The ordinary janitor is like a hostler in a garage, expected to be familiar with all the refinements of the automobile without any of the requisite training. If we would but recognize the progress that has been made, and the inability or unwillingness to meet it that we have shown, much of the present misunderstanding as to what real school ventilation is would be cleared away.

Something else that we should recognize is the economic value of *paying for results.* As soon as we see the bigness, the importance of the janitor's job, we cannot but admit the need of intelligent, efficient men to fill it. And intelligence and efficiency demand high salaries.

Henry Ford has set a precedent in the manufacturing field by his application of this policy. It is perhaps no exaggeration to say that he is the world's foremost example of a man who knows exactly what he wants, is willing to pay most liberally to get it, and then has the shrewdness and capacity *to get what he pays for.* Authorities competent to judge his work have said that he has broken every manufacturing precedent, only to replace what he broke by some practice far more valuable. It is worth noting that one of the outstanding features of Mr. Ford's work is his passion for spotless cleanliness. He makes those who serve him appreciate his value of his own property by the perfect condition in which it is kept.

Automobile manufacturers have been forced to follow Mr. Ford's example. School officials could profit by it. When they give more attention to the value they receive and less to the amount paid, they will become better recognized by those they so earnestly seek to serve as the most important producers of wealth in the country. They will effect a better understanding of the relation the janitor's work bears to the community, and this will bring with it the recognition that the work of the so-called school janitor is one of the most important forces that they direct.

This man, known by the unrespected name "janitor," affects those he serves during the most impressionable period of their lives in a threefold way:

First, by keeping his building clean and sanitary, he affects the health of school children as much or even more than the mothers do through home conditions. He has the health of hundreds of children as his responsibility, compared to the few under the care of the mother, so that the ventilation and sanitation problems with which he has to cope are many times greater than those of the individual home. If the mothers who are so careful of their children only appreciate what spotlessly clean school buildings mean to them, such spotless cleanliness would be as common as it is now rare.

Second, by his faithful performance of a generally disliked duty, he sets an example that is more effective than any one seems to realize. If, as it should be, he were given the cooperation of every pupil and teacher this example would be better appreciated.

And third, by his attention to every detail in the care of the property intrusted to him, he sets the example of a respect for property that the generation of school children now being trained requires as much as any other service.

Now the suggestion of words is a great social force. It is a law of psychology that the mind, under the stimulus of some object or event, tends to recall other objects or events formerly connected with it. If we think of the word *villain,* for instance, we immediately picture a dark, mustached, silk-hatted, evil-looking man. But formerly a "villain" was a harmless enough person—merely a small landholder who lived in a village. Many other words have undergone similar transformations. At first, a janitor was a gate keeper, then he came to be known as an odd-job man, one who could shovel coal and sweep floors—a position in life slightly above the white wing. Our modern school janitor is neither one of these. When educators justly value the significance of the work of keeping school buildings safe and sanitary, we shall have a name for this faithful individual which will as distinctively mark the importance of his work as the title "chauffeur" does in the automobile field.

So the word *Safetyfier* is proposed as a basis for discussion.

It is a new word, sufficiently descriptive to fix attention at once on the importance of the work of the man for whom it is proposed.

There are signs that the *safetyfier's* work is beginning to be appreciated. Bulletin No. 24, Bureau of Education, Department of the Interior, *"The School Janitor;"* Dr. Charles E. Reeves' Book, *"An Analysis of Janitor Service in Elementary Schools;"* Mr. George F. Womrath's articles in the SCHOOL BOARD JOURNAL, which are based on the Minneapolis board of education engineer and custodian training school; and a similar school in St. Louis; all are illuminating examples of a growing realization that this job has a more important bearing on school administration results than most educators recognize.

In Minneapolis, an annual award of medals is made to those who have best performed their duties in keeping the Minneapolis school buildings safe and sanitary. If our business men could recognize the thought behind this, we would have every community following the same example. Our Chambers of Commerce, Rotary Clubs, and similar bodies could render no more valuable public service than the annual public award of a medal for the *Safetyfier* in the community who had best performed his work.

A more appropriate name to designate the dignity, importance and value of the faithful public servants who keep our school buildings safe and sanitary for the most valuable product we produce would be an inspiring example worth any amount of effort to establish.

CARING FOR EQUIPMENT

Franklin Young Harper

Thousands of dollars of school funds are wasted each year through negligence of school boards, in the rural districts.

Many boards of directors are very generous in their allowance of school funds for buying schoolroom equipment. This is very admirable and is indeed appreciated by the teacher. But it is a pretty well known fact among teachers that many boards do not exercise proper care in looking after equipment after it has been purchased and installed.

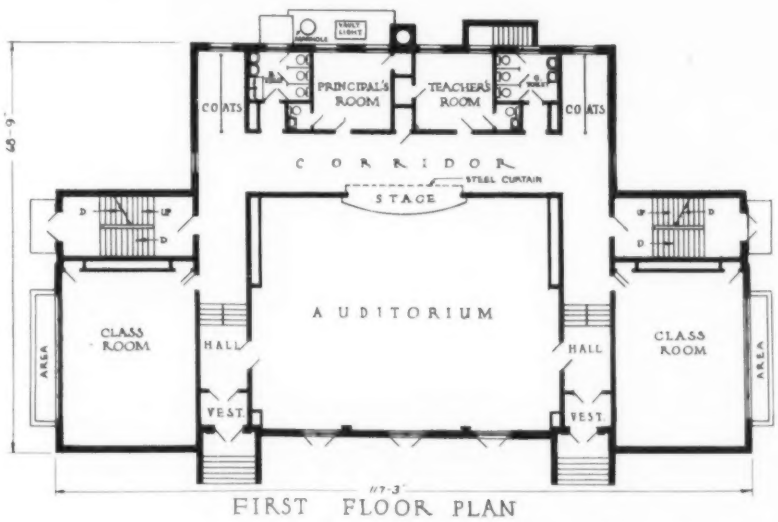
An example: District No. 6 buys a new set of books for the library. At the close of the term these books are carefully placed in the bookcase and the key is turned. This key is turned over, of course, to some member of the board who, by virtue of his authority, should have it.

Probably before ten days of the vacation period has passed, Mrs. Jones, a near neighbor and close associate of the director's wife calls to know if she can get the key to the schoolhouse. There is a certain book over there she is "just dying" to read.

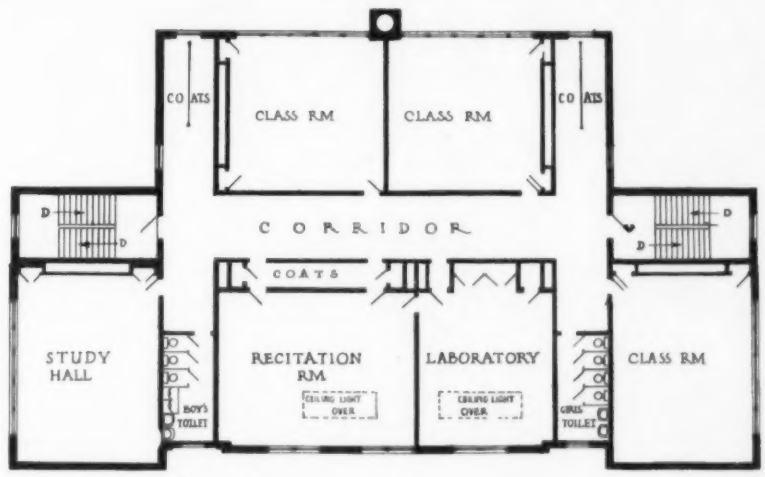
The basis of this request rests with the idea that inasmuch as school property is the common property of all the residents of the district,

(Concluded on Page 144)

HIGH SCHOOL, GERMANTOWN, N. Y. Robert R. Graham, Architect, Middletown, N. Y.

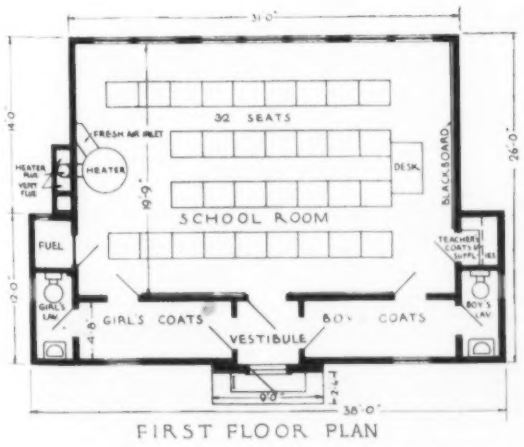


FIRST FLOOR PLAN



SECOND FLOOR PLAN

FLOOR PLANS OF THE HIGH SCHOOL, MIDDLETOWN, N. Y. Robert R. Graham, Architect, Middletown, N. Y.



FIRST FLOOR PLAN

PLAN OF A MODEL RURAL SCHOOL, NEW YORK STATE.

DESIGN AND PLAN FOR A MODEL ONE-TEACHER SCHOOL FOR NEW YORK STATE. R. R. Graham, Architect, Middletown, N. Y.

WEST JUNIOR HIGH SCHOOL,
COLORADO SPRINGS, COLO.

Thomas MacLaren, Architect, Colorado Springs, Colo.
Wm. B. Ittner, Consulting Architect, St. Louis, Mo.

THE SOUTH AND WEST JUNIOR HIGH SCHOOLS, COLORADO SPRINGS, COLORADO

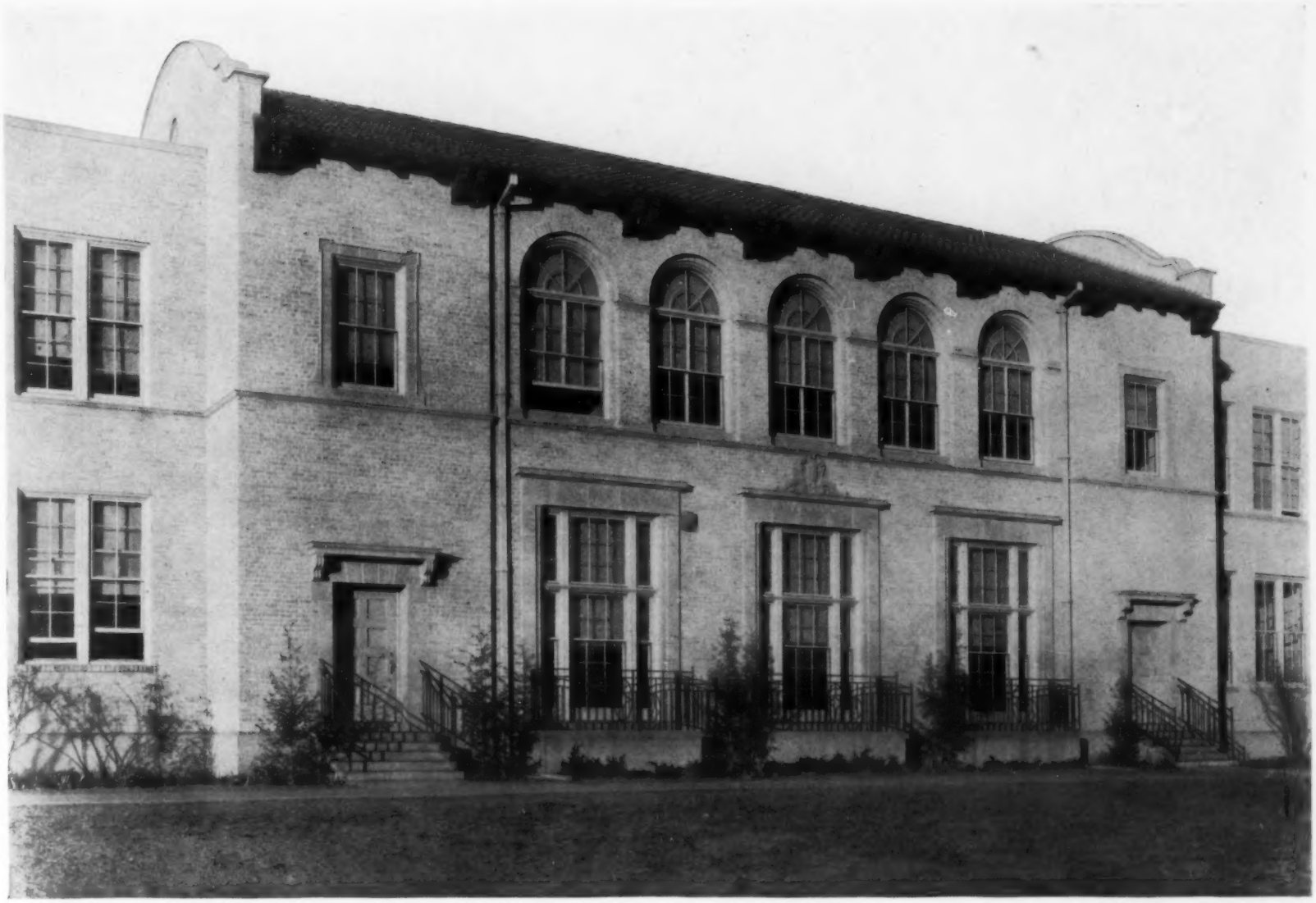
These buildings have been erected from identical plans; but in order to give individuality to each, the exteriors were designed in different styles. The South building is in Spanish architecture and the West in Tudor. The patio in both buildings is carried out in Spanish, with plaster walls relieved by tile inserts, spouts and cornices.

The main axis of the building is the patio, 86 feet by 56 feet, with the auditorium to the south, the gymnasiums to the north, and the classrooms arranged along the east and west sides. Each of the buildings contain two stories and a part basement. The first floor contains six classrooms, shops, a domestic arts department, and gymnasiums for boys and girls. Folding doors are provided between the gymnasiums in order that the two may be thrown together for exhibition games and other school activities.

DETAIL OF DOORWAY, SOUTH JUNIOR HIGH SCHOOL,
COLORADO SPRINGS, COLO.

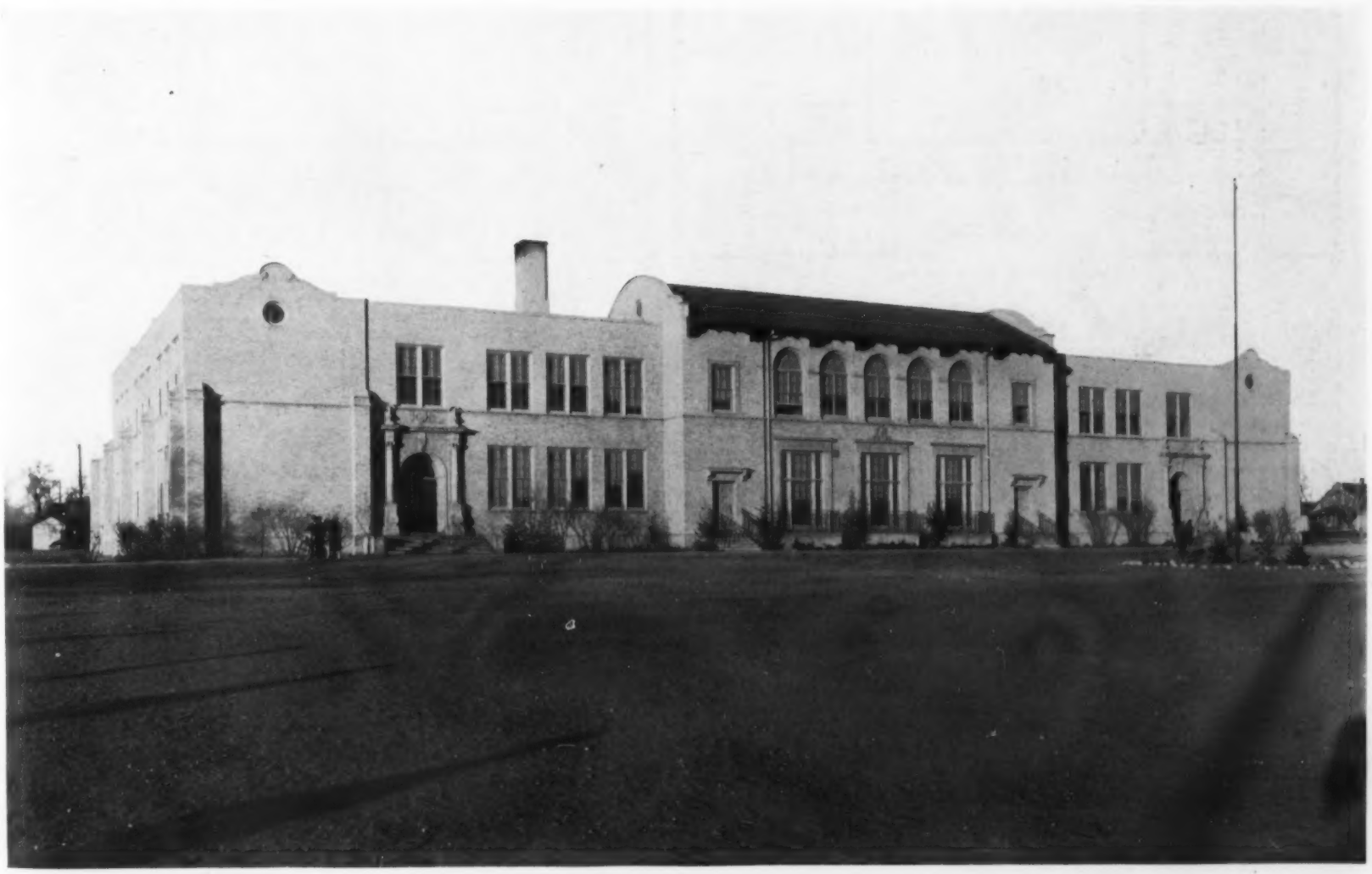
CENTER PORTION OF FRONT, WEST JUNIOR HIGH SCHOOL,
COLORADO SPRINGS, COLO.

Thomas MacLaren, Architect, Colorado Springs, Colo.—Wm. B. Ittner, Consulting Architect, St. Louis, Mo.



SOUTH JUNIOR HIGH SCHOOL,
COLORADO SPRINGS, COLO.

Thomas MacLaren, Architect, Colorado Springs, Colo.
Wm. B. Ittner, Consulting Architect, St. Louis, Mo.



SOUTH JUNIOR HIGH SCHOOL,
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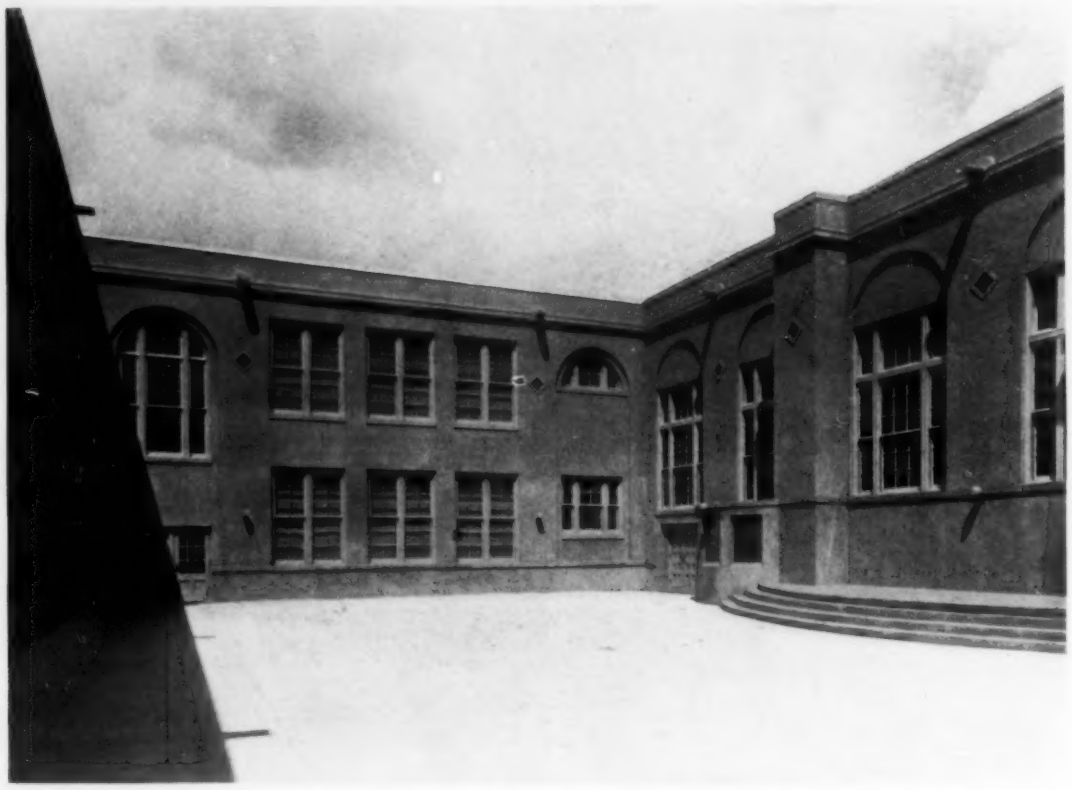
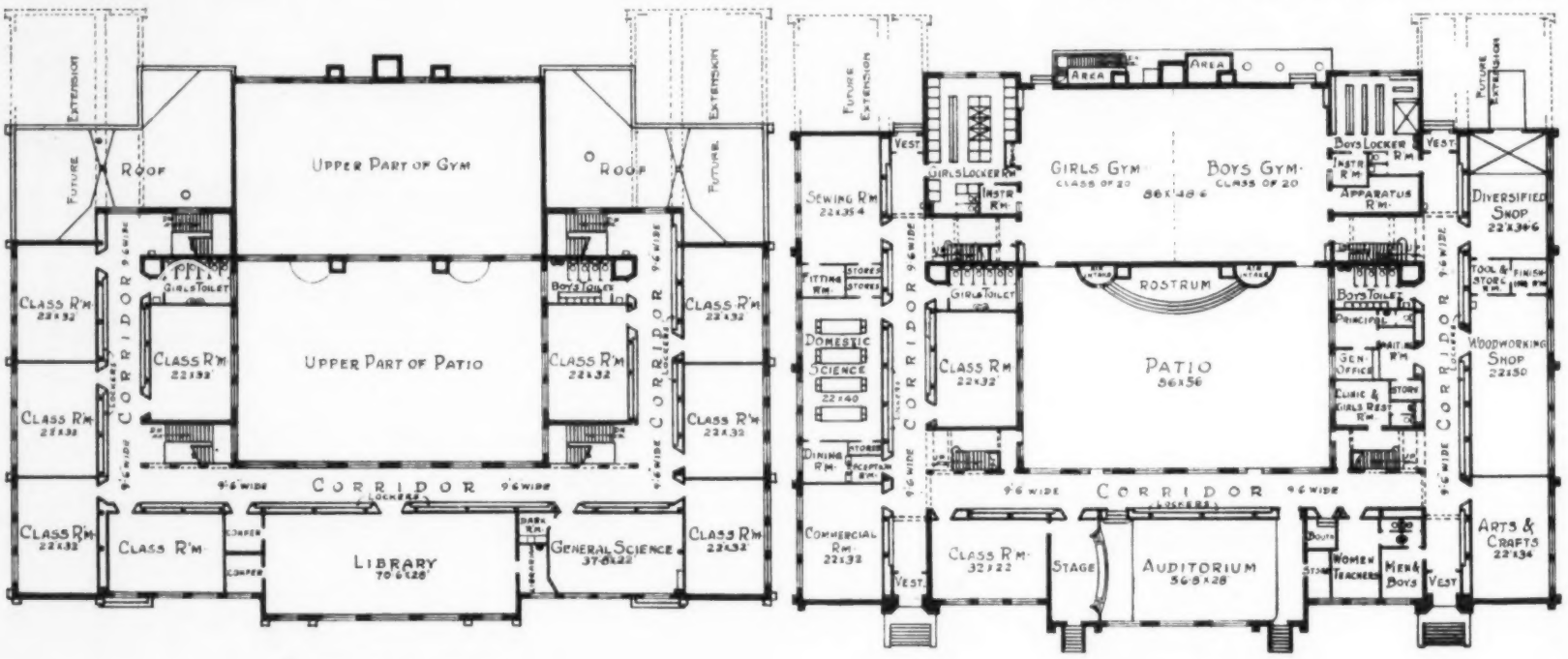


SOUTH JUNIOR HIGH SCHOOL, COLORADO SPRINGS, COLO.
Thomas MacLaren, Architect, Colorado Springs, Colo. Wm. B. Ittner, Consulting Architect, St. Louis, Mo.



SECOND FLOOR PLAN
SCALE 1/32 INCH-1 FOOT

FIRST FLOOR PLAN
SCALE 1/32 INCH-1 FOOT

FLOOR PLANS OF THE SOUTH AND WEST JUNIOR HIGH SCHOOLS, COLORADO SPRINGS, COLO.

The second floor contains nine classrooms, a general science room, and a library. The part basement contains a boiler room and fans.

The patio is useful for the shelter it gives for open air meetings of the students or for entertainments.

Provision is made for future enlargement of the buildings by means of extensions to the east and west classroom portions, adding six or more classrooms as may be demanded by the circumstances.

The schools were planned by Messrs. MacLaren & Hetherington, architects of Colorado Springs, under the direction of W. B. Ittner of St. Louis.

The construction work was carried out as one contract and cost a total of $468,355.

Statistics on fire losses would indicate that the losses have been increasing in number and amount in recent years. There are, however, no facts available by which the losses can be segregated to make clear whether they have occurred in the large cities or in the open country. The opinion seems to be prevalent that the losses mostly occurred in the small towns or in rural or semi-rural districts where there is no fire protection. Similarly, there is no means of determining whether the losses have occurred in old schoolhouses or in school buildings of recent construction. There seems to be an opinion current that most losses in cities have occurred in old buildings of improper design and non-fireproof construction.

* * *

Kindergartens in the newest school buildings in the city of Oakland, Calif., measure 24′ x 46′, or approximately one and one-half classroom units.

* * *

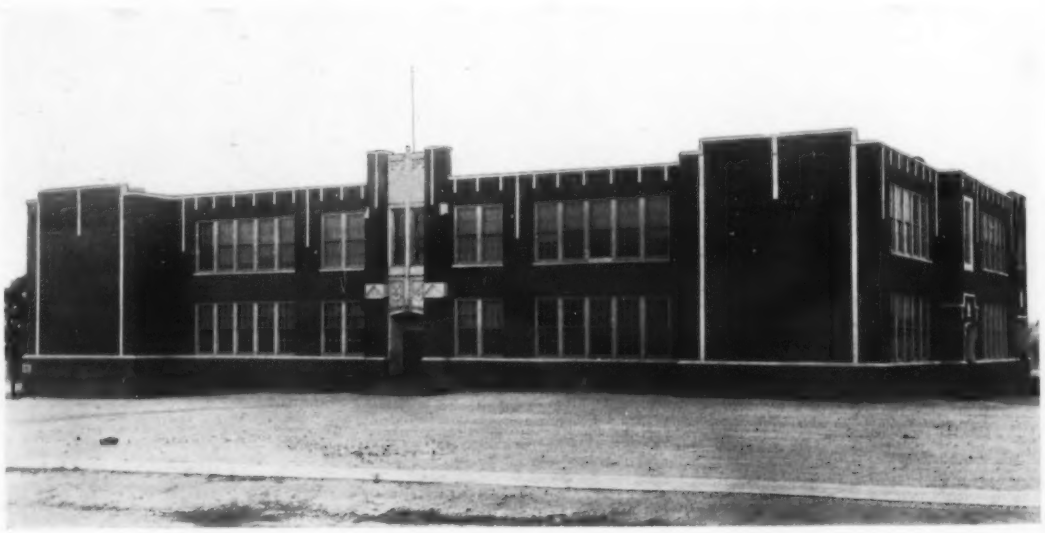
School buildings recently erected in New York City devote 55% of their total floor area to actual instructional purposes. They exceed by 5% the minimum standard set up in the "Candle of Efficiency."

* * *

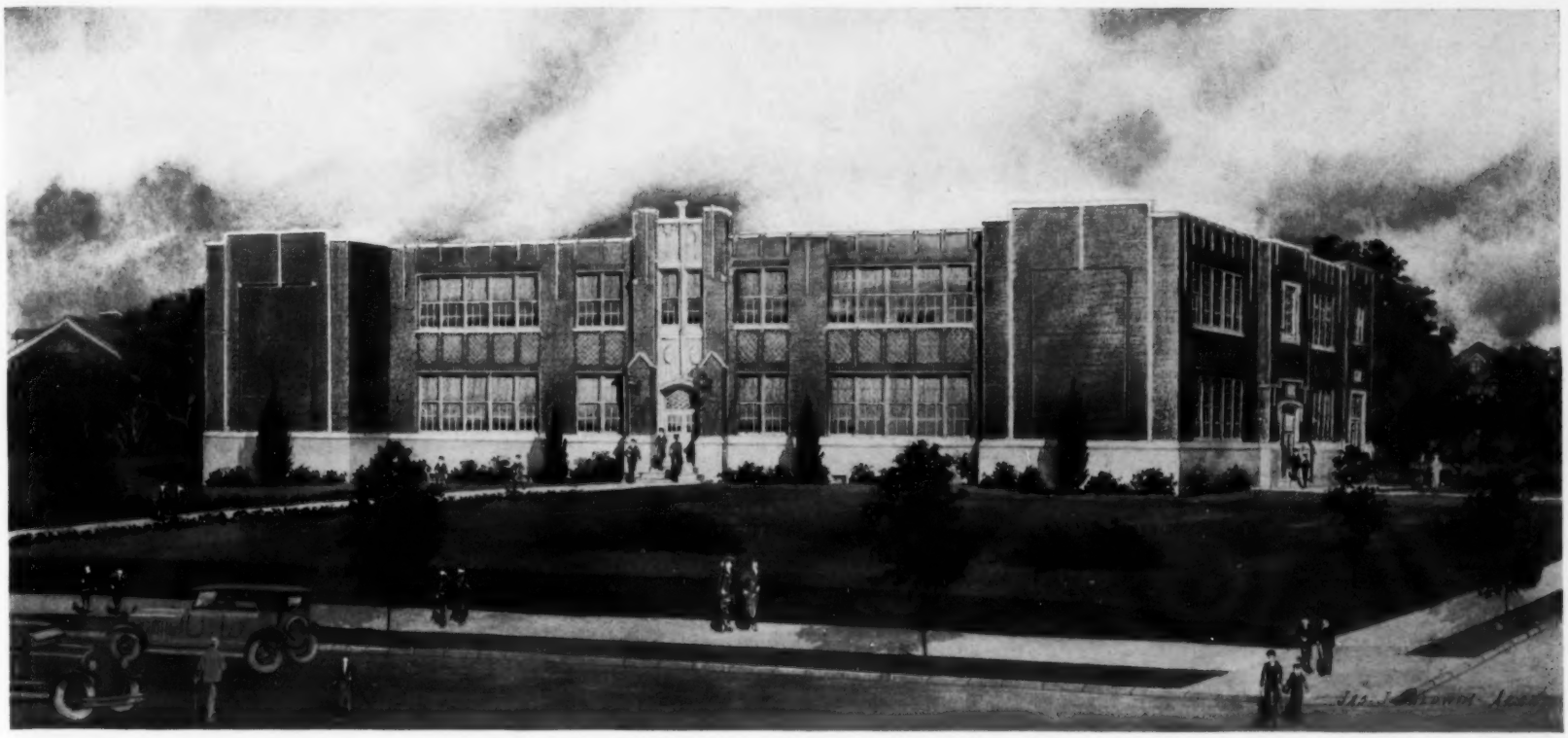
The shape of school buildings must be first of all determined by efficiency for administration of the school. Other factors of importance are the relation of the building to the streets and to the size and shape of the site, possible enlargement and ultimate size of the building, orientation with respect to sunlight.

* * *

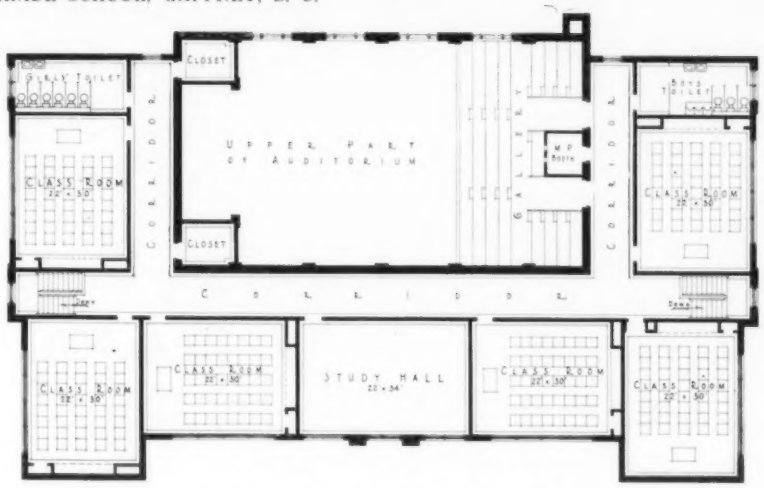
A common and fatal blunder in the planning of school buildings is carelessness concerning enlargement and ultimate size of the structure.



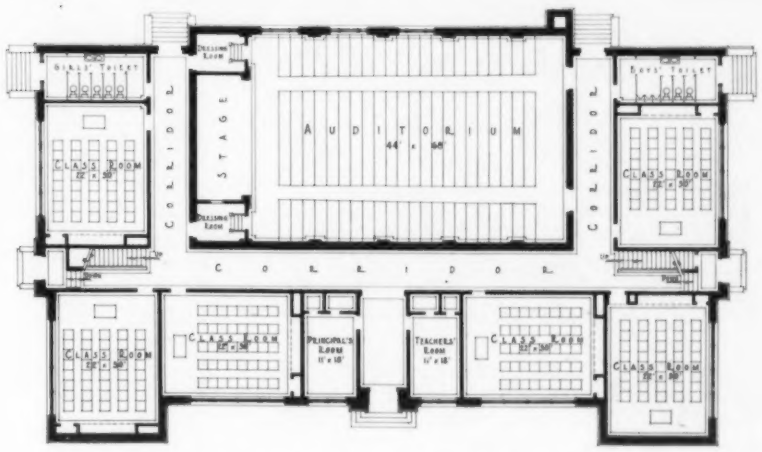
GRADED SCHOOL, GAFFNEY, S. C. J. J. Baldwin, Architect, Anderson, S. C.



GRADE SCHOOL, GAFFNEY, S. C. James J. Baldwin, Architect, Anderson, S. C.

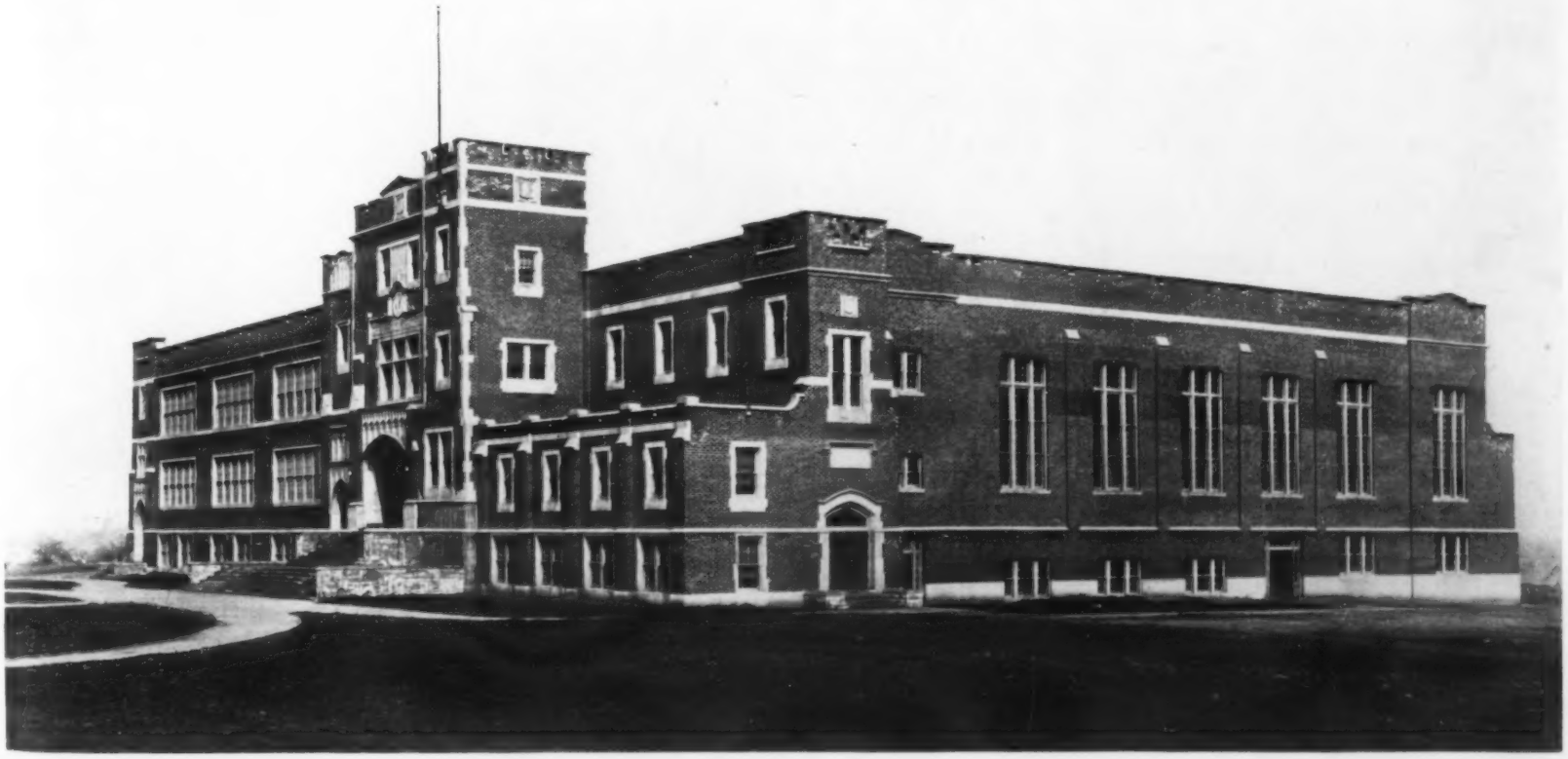


·SECOND·FLOOR·PLAN·
·JAMES·J·BALDWIN·ARCHITECT·

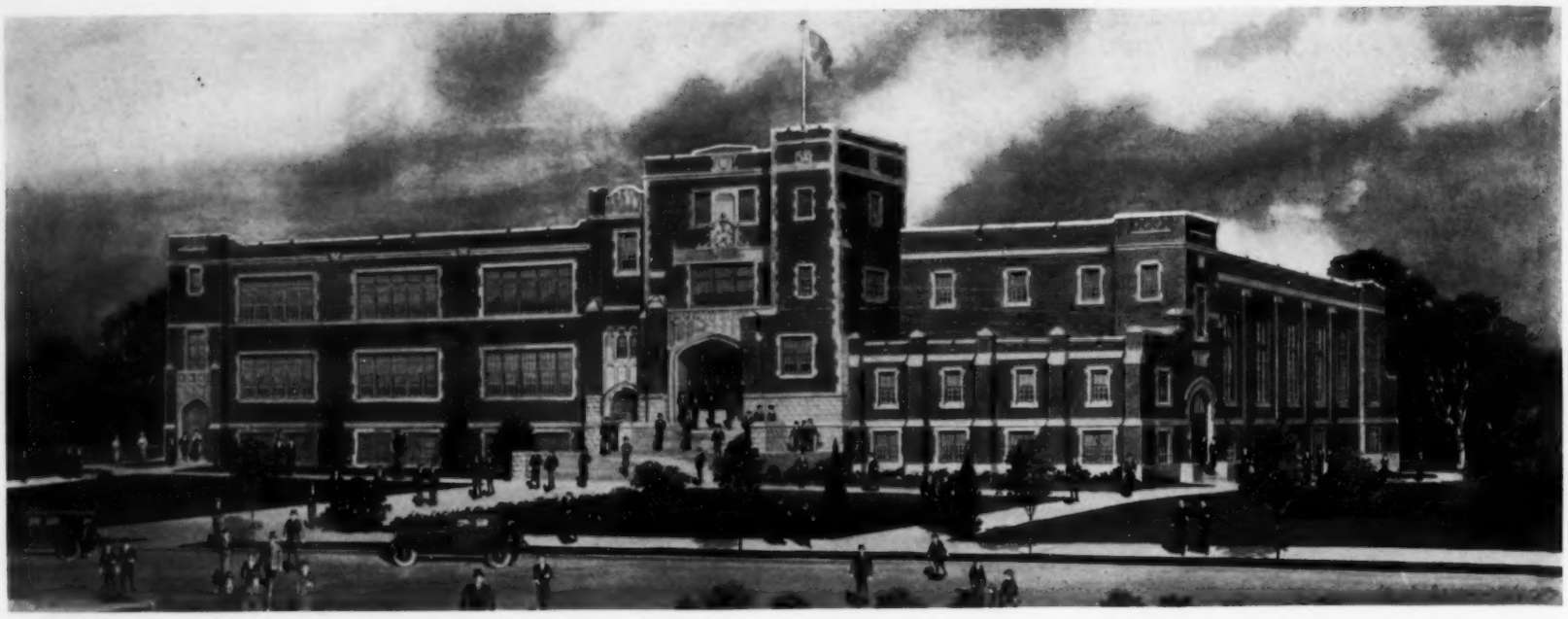


·FIRST·FLOOR·PLAN·
·JAMES·J·BALDWIN·ARCHITECT·

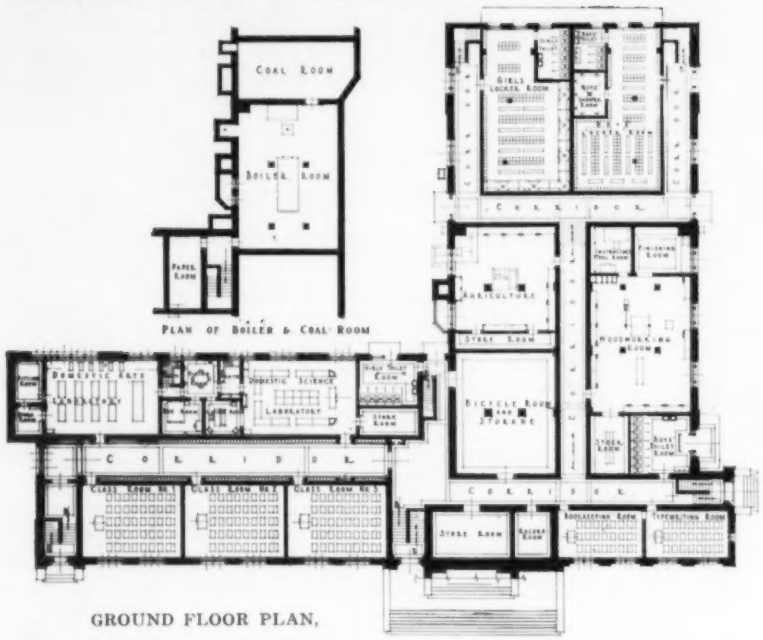
FLOOR PLANS OF THE GRADE SCHOOL, GAFFNEY, S. C.



SIDE VIEW OF THE NEW HIGH SCHOOL, GAFFNEY, S. C. J. J. Baldwin, Architect, Anderson, S. C.



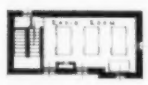
HIGH SCHOOL, GAFFNEY, SOUTH CAROLINA. James J. Baldwin, Architect, Anderson, S. C.



PLAN OF BOILER & COAL ROOM

GROUND FLOOR PLAN.

SECOND FLOOR PLAN.



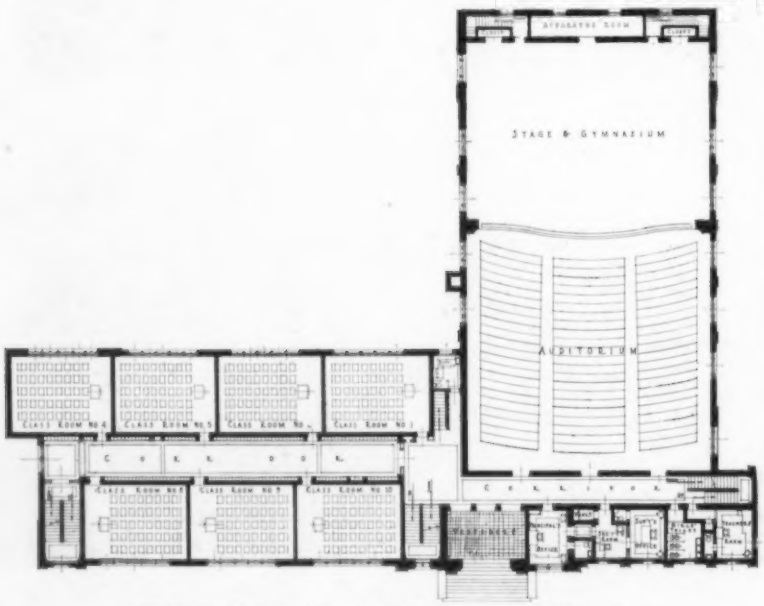
PLAN THRU UPPER PART OF TOWER

TWO INTERESTING SOUTHERN SCHOOLS

The new high school and the new elementary school at Gaffney, S. C., are interesting examples of the development of complete school plants in a Southern city. The high school is practically fireproof and is erected of concrete and brick with stone trim. The arrangement is such that the auditorium and gymnasium can be used independently of the school for community purposes. The building was completed at a total cost of $250,000.

The elementary school is semi-fireproof and serves not only for grade class purposes but also as a community center. It cost $75,000.

The architect of both buildings is Mr. J. J. Baldwin of Anderson, S. C.



FIRST FLOOR PLAN, HIGH SCHOOL, GAFFNEY, S. C.

DETAIL OF ENTRANCE, HIGH SCHOOL, GAFFNEY, S. C.

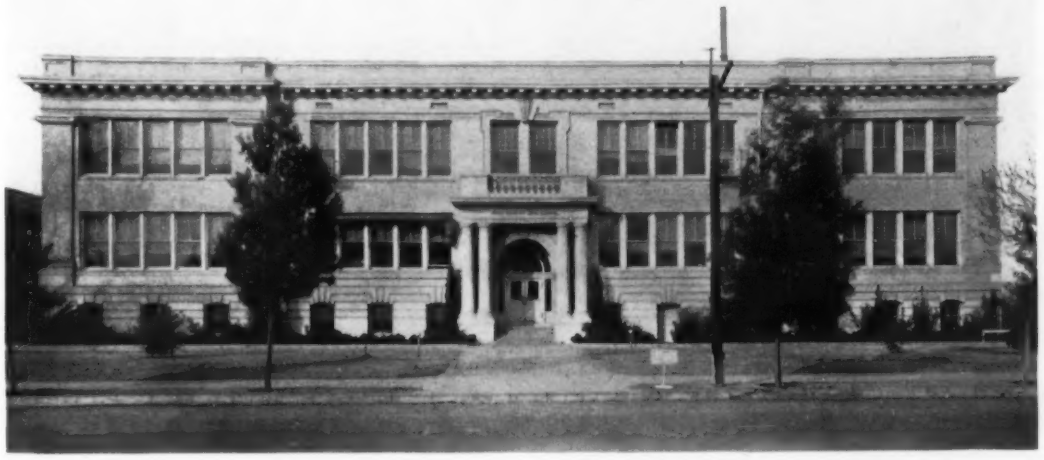
ELEVEN YEARS OF BUILDING DEVELOPMENT IN BAKERSFIELD HIGH SCHOOL, BAKERSFIELD, CALIF.

Vice-Principal Paul Vander Eike

There are doubtless other high school districts that have during the past decade carried out pretentious and unusual building programs, but there are few, like Kern County Union High School, Bakersfield, Calif., with an assessed valuation of $72,000,000, that have without a heavy bond issue, purchased grounds, erected school buildings and installed equipment, costing nearly a million dollars. Bakersfield has been carrying out its big building program with the help of but a single bond issue of $200,000, floated in 1921, when the plans for enlargement of the original plant were well under way. A brief history of developments will be of interest in this connection.

The high school was organized in 1893, and two years later what is now called the "old building" and which contains the commercial department and the cafeteria, was erected. This served for ten years, when a boom in the neighboring Kern river oil fields, and interest in the horticultural development of Kern county started an unprecedented growth, and necessitated the erection of the present administration building in 1906. The county board of education, under whose control the high school was at that time, then decided to stimulate interest in the local industries by making this a polytechnic high school. Accordingly, a resolution was passed to that effect in 1912 and a manual arts building was provided for. Substantial additions were made to this building in 1917, and the present fine new shop was completed in 1924, housing the transportation facilities, and containing rooms for the automotive trade practice, radio construction, and machine shop courses.

ORIGINAL KERN COUNTY UNION HIGH SCHOOL, ERECTED IN 1895, BAKERSFIELD, CALIF.



ADMINISTRATION BUILDING, KERN COUNTY UNION HIGH SCHOOL, BAKERSFIELD, CALIF.

In 1914, the entire high school plant, as shown on the plat of the present plant, consisted of two city blocks on which were three buildings: The original high school building, erected in 1895; the administration building, erected in 1906; and the first shop building erected in 1912. Today the plant consists of eight and a half city blocks on which are situated eleven buildings, a $40,000 heating plant, and a community athletic field, consisting of two blocks and containing a $49,000 reenforced concrete stadium built in 1923. Aside from the buildings already mentioned, there are the following: An auditorium (1915) costing $75,000, having a seating capacity of 1,100 and now too small for the student body which numbers 1,900 including the junior college; a gymnasium (1918) costing $65,000 and now also too small; an agriculture building (1921) costing $46,000; a home economics building (1922) costing $140,000; a science building (1923) costing $200,000; a four-room temporary classroom building (1923) costing $15,000; a new shop (1924) costing $100,000, additions to the original shop having been made in 1917 at a cost of $40,000; an academic building (1925) costing $100,000. The real estate, purchased for sites, aggregated $125,000.

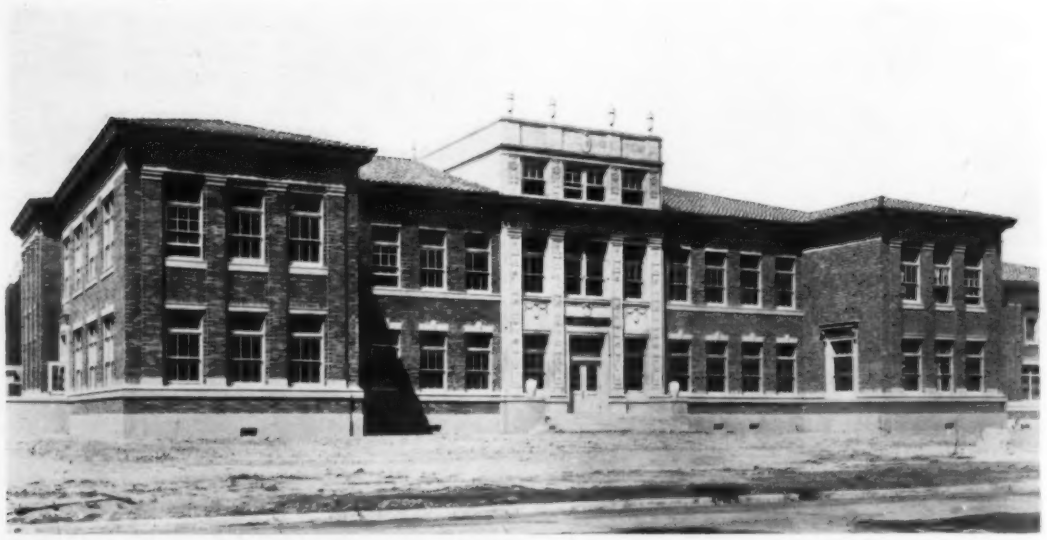
The academic building, which has been completed recently, is a two story structure and contains a library and study hall on the upper floor and classrooms for art and drafting classes on the lower floor. A new auditorium with a considerably increased seating capacity is badly needed and will doubtless be constructed during the next two or three years. The site for this has already been negotiated for. As soon as this building is ready for occupancy the present auditorium will be converted into a library and study hall and the study hall in the academic building will be cut up into more classrooms. The cafeteria, which is now entirely inadequate, may

HOME ECONOMICS BUILDING, KERN COUNTY UNION HIGH SCHOOL.

AGRICULTURAL BUILDING, KERN COUNTY UNION HIGH SCHOOL.
Charles H. Biggar, Architect, Bakersfield.

AUTO MECHANICS, ELECTRICAL AND MACHINE SHOPS, KERN COUNTY UNION HIGH SCHOOL.

LIBRARY BUILDING, KERN COUNTY UNION HIGH SCHOOL.



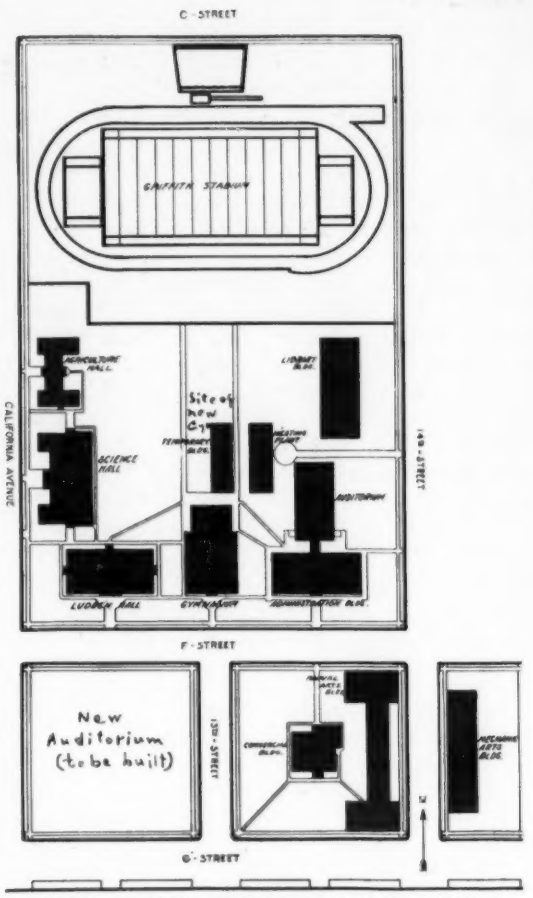
SCIENCE HALL, KERN COUNTY UNION HIGH SCHOOL, BAKERSFIELD, CALIF.

be placed in the basement of the new auditorium.

The building most needed now is another gymnasium for girls. Fortunately California winters are not so inclement as to forbid outdoor exercise, or the present gymnasium would scarcely be one-fourth large enough. The new gymnasium will be built west of the present one and will probably be about of the same size.

It is a significant fact that the high school owns seventeen buses and daily transports nearly 500 students to and from school from within a radius of 25 miles. In order that the expense may not be too burdensome to the taxpayers, the buses are kept in repair in the new shop, students assisting in the work whenever possible. Only experienced drivers are employed, and everything possible is done to insure the safety and comfort of the students.

Up to the present time the active building operations have kept the grounds in such a torn up condition that, except for a few foundation plantings around some of the buildings, little effort has been made to beautify the premises by planting trees and shrubs. English elms have been planted around the grounds, a hedge of Euonymous Japonica encircles the athletic field, and groups of evergreens decorate corners and other parts that require treatment.



KERN COUNTY UNION HIGH SCHOOL CAMPUS.

NOTES ON SCHOOLHOUSE ADMINISTRATION

St. Louis is electrifying its school buildings in all departments where efficient apparatus is available. Electricity is used in place of other power in the laboratories, as heating elements in the cafeterias, for refrigeration, etc. Steam is, however, used in certain parts of the cooking in the cafeterias.

* * *

The City of Houston, Texas, receives 2½% interest on all daily balances in its depository banks.

* * *

Houston purchases its sites for new school buildings by a method which has worked well to prevent high prices. When a new piece of property is considered for purchase, it is passed upon by individual members of the board of education and then by the board as a whole. The price to be fixed is determined by an "appraisal board" made up of five real estate men who serve the board of education without pay. If the owner refuses the amount offered by the appraisal board, an "arbitration committee" of two persons, one representing the owner, the other representing the board of education, is asked to come to an agreement. If these two arbitrators cannot make an agreement, they are privileged to draw in a third person of their own choice. In case the owner refuses to arbitrate, the board of education proceeds to acquire the land by condemnation. Recently the board of education had 30 suits pending and had 20 arbitration committees at work.

* * *

Mr. Lewis M. Coath, a member of the Chicago board of education, is authority for the statement that $5,000,000 worth of unused equipment and supplies are in storage in the elementary and secondary schools of the City of Chicago. Some of these supplies have been in the schools for three and four years and still remain unused.

* * *

Is there any value in tagging or marking school furniture and equipment to determine the date when it was purchased and to give some clue to its original value? There seems to be some merit in such a plan if it is applied to major articles of the movable type.

Letting the Parents Do It

The Lafayette, Ind., Experiment in Choosing School Board Members

Herbert W. Heimlich

"No one has a better right to select school trustees than the parents of school children."

Based on this premise, Lafayette, Indiana, a city with a population of some 23,000, is now trying an unusual experiment by which it is hoped, first, to take the administration of public schools out of the influence of partisan politics by placing the selection of school trustees directly in the hands of parents of pupils, and, secondly and incidentally, to awaken a new neighborhood spirit and interest in community affairs.

The plan, which has been put into effect through the Lafayette Public School Parents' Council, was suggested last fall in the municipal election campaign by one of the mayoralty candidates. Not only did he outline the plan but he also presented a pledge, signed by the councilmanic candidates on his ticket, that such a plan, if attempted, would be honored and made operative by the city administration.

Under the plan, parents of pupils determine who shall sit upon the city board of school trustees. The Indiana state law provides that election to the school board shall be by the city common council, but the statutes are silent as to the nomination of trustees. Thus, the parents' council nominates a trustee whom the city council, through its pledge, is honor-bound to elect. It may be said that the mayorality candidate who proposed the plan was elected, and with him eight out of ten councilmen.

The Mayor's Argument

Convincing arguments for the plan were presented during the campaign by this candidate, Albert R. Ross, and he has remained a steadfast supporter of the idea. The plan is wholly his.

Henry N. Sherwood, superintendent of public instruction for the state of Indiana, to whom the plan was explained, declared that it is to be found nowhere else in the state. So far as is known in Lafayette, this plan is not to be found in any other city of the nation.

The importance of the public schools and their task were emphasized by Mr. Ross in his campaign. The present speed and jazz age, he argued, have added to the difficulty of training children. One factor with an important bearing upon the up-bringing of children has been the disappearance of a neighborhood spirit, the restoration of which he regarded seriously as a part of the present-day task. People are either at the movies or out in their automobiles, he stated, with the result that neighborly contacts, common in an earlier day, are neglected, as well as the children; at the same time a community sense of responsibility and interest in the problems which affect each family and accordingly the community as a whole, have to a large extent vanished.

The problem is one needing attention and solution, and Mr. Ross presented his plan of selecting school trustees as a possible remedy.

The practice in Indiana of nominating school trustees is by political caucus. The law provides that cities the size of Lafayette shall have three school trustees. Custom has established the rule that two shall be affiliated with the party in power, and the third member shall represent the minority party. With the nomination made in political caucus, there is no choice between a republican and a democrat; any contest is between members of the same party. The mayoralty candidate attacked this plan as encouraging a political administration of the schools. A trustee who owes his election to a caucus has allegiance to the group which named him, rather than to the parents or the public at large.

Importance of the Office

Lafayette school trustees last year had the spending of $324,950, and had the responsibility of caring for an investment of $1,360,000 in buildings, equipment, and lands. A total of 139 teachers had to be employed and 3,864 pupils educated. An average of $1,747 was spent each school day last year for educational purposes. School board members are accordingly charged with a big and important task. As contrasted with the school city cost of $324,950 last year, the municipality in the same period had expenditures of nearly $79,000 less.

Since politics has nothing to do with the education of children, Mr. Ross contended further, politics should have nothing to do with the selection of school trustees. Discussing possible remedies, he opposed election of trustees by popular vote. The cost would be too great to elect but one trustee each year, and the most desirable people would not enter into a contest. Popular vote would permit a voice by those financially interested and would be objectionable.

Urging cautious change, Mr. Ross advised that parents, those most interested in the education of their children, be given an opportunity of having a greater voice in school administration, by permitting them to select school trustees.

"We have available for the service of these children an agency in the form of a great natural force which will eventually and effectually remove the influence of all partisan politics from their education," Mr. Ross declared. This natural force, the love of parent for child, constitutes the strongest sentiment in all human relations, he said, continuing: "Since this great force is available for the service of the children, why shouldn't we make use of it?"

A Grievance Committee Suggested

In addition, the candidate proposed the organization of a grievance committee of parents, which would handle certain problems and difficulties in school affairs and provide for a "helpful, intelligently directed co-operation of the parents with the school authorities," in order to "guard against interference with the administration or any destructive criticism. The parents would not permit any agency to interfere with the administration of the schools which was not for the best interests of the children.'

The proposed grievance committee of parents would prevent individual parental interference with school administration. "Parents," he said, "should agree to take up any matters of complaint with this grievance committee and not intrude their own affairs into the school management." A point in favor of this arrangement would be that "parents, who would hesitate to speak of something they felt to be wrong, would feel free to go to a neighbor and talk matters over quietly."

As already noted, the councilmanic candidates on Mr. Ross's ticket presented two pledges. In the first of these they promised to elect as school trustees the nominees of the parents' council. The second pledge contained a promise to support an alternate plan,—an educational council to be made up of representatives of luncheon clubs, labor unions, the chamber of commerce and similar general bodies. This body was also to nominate school trustees, in case parents did not form the parents' council.

The schools, undoubtedly, formed the outstanding issue of the campaign. There had been disturbance in the schools. Climaxed by a strike of high school pupils. When the votes had been counted, Mr. Ross had been elected and with him eight of ten councilmen. This indicated that one of the two plans would be given a trial.

The Articles of Agreement

The new civil city administration went into office January 4, 1925, but before that time meetings of parents had been called to take steps for the organization of a parents' council. Meetings of parents and guardians were called in each of the city schools. Each grade school named three representatives, and the one high school, five, to a temporary council, which was charged with drawing up "Articles of Agreement," or a constitution and by-laws for the proposed council.

This agreement was completed during February, and submitted back to each school group of parents for ratification. The document provided that it became effective after seven of the nine schools had voted ratification. Each school group ratified the articles, although several minor amendments and suggestions, designed chiefly to clarify, were made and subsequently became part of the agreement.

With this done, the next step was another series of parents' meetings to organize a permanent council under the provisions of the articles of agreement. Thus was the parents' council organized.

The articles of agreement, under which the "Lafayette Public School Parents' Council" operates contain the following preamble: "We, the parents and guardians of the pupils in the public schools of Lafayette, desiring to co-operate with our Civil and School administrations, for the betterment of our educational system, do hereby establish the following Articles of Agreement."

For the organization of the council, it is set forth that parents of the respective schools shall select representatives, in the proportion of one for each 150 pupils or major fraction thereof, with no school to have less than two representatives. Provisions are made for meetings, to be held in the schools (the school administration permitting), with high school parents one evening, and grade school groups the next evening, at which representatives to the council are to be elected. Nominations are to be made from the floor, with voting by secret ballot. One of the representatives elected shall be designated as the chairman of his or her delegation. These meetings are held each year on the first Wednesday and Thursday of March, and councillors take office on the second Wednesday of March. The term is for one year; each representative is eligible to re-election, providing he or she continues to have a child in the schools. An alternate for each council member is also provided.

Duties of the Council

In a section devoted to meetings, quorum and officers, the articles provide that the representatives chosen by the several schools shall meet on the evening of the second Wednesday of March, when the council shall organize by electing officers: president, vice-president, and secretary, from among council members. Nominations again are to be from the floor,

with voting by secret ballot. Two-thirds of the membership are required as a quorum to do business. The duties of the respective officers are outlined. Meetings of the council, it is specified, shall convene on the call of the president. The president, it is set forth, also shall call a meeting on demand from the delegation of any school.

The duties of the parents' council are: "a) To call meetings of parents whenever questions shall arise demanding their attention. b) To co-operate with the school administration on problems of the general school system which are of special concern to the parents as such; and to consider such special problems as may be submitted by local co-operating committees hereinafter named. c) To nominate to the city council of Lafayette a candidate for each succeeding vacancy on the board of school trustees."

It is stipulated that the council, on the first Wednesday in April, shall proceed to the determination of a nominee for school trustee. No candidate shall be certified who has not received a majority vote. For the purpose of attaining such majority, the lowest candidate may, after any ballot, be eliminated. Then, upon election of a first choice, a second and a third choice shall be determined in like manner.

This done, the president is instructed to name a committee to visit the first choice and ascertain if the nomination will be accepted. Should this nominee decline, the second choice shall be visited, and, if necessary, the third choice.

The Nominees

Upon acceptance, the name of the candidate shall be certified to the city council in time for consideration at the June meeting. The Indiana law, incidentally, requires that the city council, at its June meeting, elect a school trustee for a three-year term which begins August 1.

In the matter of selecting a nominee, the articles of agreement provide that parents may advise with, and may by formal action instruct, their representatives. However, no representative shall be bound by his school beyond the first vote or ballot.

Similarly, the articles provide for the organization of *co-operating committees* in each school, made up of three members. The manner of selection is the same as for the parents' council; alternates are also to be chosen. The duties of the co-operating committees, shall be to "co-operate with the school administration and with the teachers of the local school in the solution of educational problems of their districts."

In a section devoted to miscellaneous items, the articles present the following paragraphs:

"1. Meetings of parents in the several schools shall be presided over by the chairman of the respective delegations to the parents' council. In the event of a general meeting of parents, the president of the parents' council shall preside.

"2. A parent shall be ineligible to membership in the council when he or she no longer has a child in the public schools.

"3. Amendments to the articles may be made by the parents' council, on a two-thirds vote of its total membership, provided that all proposed amendments be presented in print and read at a regular or called meeting at least one month preceding the time of adoption."

Such is the plan and nature of the Public School Parents' Council. Surely an interesting experiment in democratic school government!

The Plan Put Into Operation

Some citizens of Lafayette declare that the plan is idealistic, rather than practicable or practical. There were breakers which for a time threatened the success of the plan. An unusual situation was created before the Parents' Council had been able to get its bearings. The president of the city school board was killed in an accident, nearly four months before the expiration of his term. A vacancy was thus made to exist unexpectedly and prematurely. The parents' council had already nominated its choice for the regular term. Was this nomination also to apply to the short term, and was the city council bound by its pledge for this emergency?—The pledge seems to leave no loophole for the city councilmen; they promised to elect parents' council nominations for *all* vacancies in the school board. On the other hand, the articles of agreement for the parents' council stipulate specifically that its nominations are for the *regular* school board terms. The whole thing was new and there were misunderstandings and hurt feelings. Four councilmen who signed the pledge, with two of the minority party, combined to elect a trustee other than the man nominated by the parents' council. For a time it appeared as though the parents' council might die an early and untimely death.

However, when the time came for the regular election, the parents' council meantime reaffirmed its choice, and the city council appointed the nominee of the parents' council.

Objections to the Plan

There is naturally a great deal of speculation as to whether the plan will live and succeed. Will parents take enough interest in the matter? Can scheming be eliminated even from a parents' council? Is it fair for parents alone to have such an important voice in the naming of men and women who shall direct the expenditure of moneys paid in by *all* taxpayers? These and many other questions have been asked.

The first meetings of parents, at which representatives to the parents' council were named, were not largely attended. It may have been lack of interest or lack of understanding. The plan was new and its aims and purposes, though given wide publicity, seemed hazy to many. With the interest now aroused, it appears quite certain that more parents will attend subsequent meetings when instructions are to be given regarding the nomination of a school trustee. Representatives to the council have taken a keen and active interest in the organization and its work.

There have been charges, too, that the parents' council, at the start, failed to choose a nominee from an unbiased standpoint, and that instead several desired objectives in school administration were considered in making a choice. Whether or not these and other charges be true, mistakes have undoubtedly been made, which should serve as warnings for the future. It must be appreciated that a city council, a parents' council, or any other body will find it difficult, yes impossible, to select as school trustee a man or woman who will be acceptable to every individual or group.

It might be expected that Catholics and Lutherans, who conduct large parochial schools, five in all, at their own expense, might object to the parents' council plan, for parents of at least these grade school children have no voice in the selection of a school trustee, though they pay taxes. Complaint because of "taxation without representation" might also be expected from that group whose children are past the school age, or those who have no children at all. However, these groups have made little or no public complaint.

Whether the plan will awaken a new neighborhood spirit and a greater common interest in community affairs, by throwing parents together in some of the work and problems of educating their children, remains to be seen. Whether, too, it will bring parents closer to their children by causing or encouraging them to take a more active interest in their education, thus helping to solve what many believe to be the most serious home problem, and perhaps the most important problem of the day, is, of course, another matter for the future to reveal.

Proponents of the plan admit that it breathes of the idealistic, but they insist at the same time that it is practicable and workable, and that in it lies a bright hope for the schools, the children, the parents, and for the future welfare of the nation. Time will tell!

The Colorado Janitors' School

John Henry Shaw, Colorado Teachers' College, Greeley, Colo.

Twenty-three public schools, most of them in Colorado, some of them in Wyoming and Kansas, were kept cleaner the last year, the heating plants were operated more efficiently, the grounds were more attractive—all because the janitors attended summer school in July, 1925, and learned a number of things which competent school janitors should know.

INSTRUCTION ON BROOMS AND HOW TO USE THEM.

As a direct result of the introduction of a short course for school janitors and engineers at the Colorado Teachers' College, 47 janitors and engineers enrolled for the second class in the work, which was conducted during the week of June 7 to 12, 1926. There is every reason to believe that a hundred or more schools in Colorado and adjoining states will present a more attractive appearance during the coming school year. An increased number of schools will benefit by reason of the fact that several of the men enrolled in this year's course were head janitors in school systems employing from three to one hundred janitors. One of the students enrolled was the purchasing or business agent of a city school system, who was present in order that he might learn more about the duties of the janitor and might know whether or not the men assigned to the buildings were doing their duty.

The effect of the new course on the appearance and efficiency of operation of the physical school plant is indicated by the visits of men in the course of their business of various kinds. These men have spread the news that the changed appearance in school plants has proven the worth of the course offered by the Colorado State Teachers' College. Increased confidence has come as a result of letters from practically every city school system which sent one or more janitors to take the course.

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LEGAL PROVISIONS FOR CUSTODY OF, AND LIABILITY FOR PUBLIC FUNDS FOR SECONDARY SCHOOL SUPPORT

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Legal Limitations and Prohibitions of Expenditure of Public Secondary School Funds

The modern public secondary school board has a responsibility for the management of a diversified business and professional enterprise. No longer does the modern secondary school board provide only a classroom or two sparingly furnished with desks, one or two teachers, a janitor (perhaps), and a supply of fuel, as its year's duties.

The modern public secondary school board provides educational opportunities for almost all minors and many adults of the community. It hires a teaching corps of teaching specialists, supervisors for special types of instruction, a superintendent perhaps, and a principal and assistants. It employs physicians, oculists, dentists, nurses, physical inspectors, and other personal service specialists to protect and promote the health of the students. It employs business managers, accountants, secretaries, treasurers, clerks, and other business employees in order to transact properly the business of a large and important enterprise.

The school board of today builds modern, well-equipped classrooms in artistically designed, fireproof buildings. It builds auditoriums, laboratories, gymnasia, and shop buildings. It builds teacherages and dormitories. It buys and equips playgrounds, ahtletic fields, and agricultural experiment plots. The modern public secondary school board provides diversified special equipment for classrooms, laboratories, fields, and shops.

All the foregoing purposes of expenditure are legalized by the statutes of certain states. How does the public through its state constitutions, statutes, and courts protect itself against the misuse of the authority conferred? What are the legal limitations and prohibitions affecting the expenditure of public secondary school funds? The purpose of this article is to present the laws relating to the regulation of the expenditure of public funds for the support of the public secondary school program.

General Control

In the preceding article it was shown that certain states authorize the payment of members of local public secondary school boards for their services as a legitimate purpose of expenditure of public school funds. The statutes of eight states, however, specifically prohibit the use of public secondary school funds for this purpose.[1]

The statutes of two states mention the desirability of the budget system of public school expenditures, but permit local boards to use the plan at their own option.[2] However, reference to the statutes of other states shows that 22 states now require budgets to be prepared for all proposed expenditures for the ensuing year.[3] The statutes of Alabama provide that public school administrative officials shall not be entitled to receive their salaries unless all records and reports have been properly submitted.[4]

Teachers' Salaries

The importance of professionally trained teachers of high mental and moral caliber in the public secondary education program has already been mentioned in the discussion of court opinions supporting the validity of retirement salary acts for teachers. The statutes of the various states contain many provisions which are apparently intended as safeguards against subjecting the children of this country to instruction from teachers who are unfit for the responsibility.

The statutes of five states stipulate that only those teachers may be employed who are citizens of the United States, or who have signified their intentions to become citizens by having applied for first papers.[5] Other states prohibit members of local school boards[6] or their near relatives[7] from being employed as teachers in public secondary schools.

Every state now has statutory provisions prohibiting the employment of teachers who have not the qualifications prescribed by the state education department.[8] As an additional precaution, the statutes of ten states stipulate that public secondary school funds shall be expended only for teachers who have teachers' certificates in full force and effect.[9] As a preventive measure against misunderstandings between teachers and school boards, the statutes of sixteen states require that teachers' contracts be in writing.[10]

The courts have uniformly supported the power of the state to prohibit the employment of uncertified individuals as teachers in the public schools.[11] Where the statutes required that the teacher's certificate must be filed with her contract of employment and through no fault of the teacher the certificate was lost in transit by a school board employee, the Supreme Court of West Virginia held that the teacher could force the public school board to recognize her contractual rights by a writ of mandamus.[12]

The courts have refused to recognize contractual claims of teachers who did not have written contracts, where the statutes of the states required such contracts to be in writing.[13] The favorable balloting by the public school board amounts only to an offer of employment which the board has legal power to revoke at any time before acceptance.[14] In California, an agreement to employ a teacher made by a school trustee in his individual capacity is not a binding contract of employment. The secondary school board asembled in a meeting must vote favorably in order for a legal offer of employment to be made.[15]

A public secondary school board may be prevented by temporary injunction from employing teachers, if it be proved that the members of the board have been guilty of acts of official misconduct and incompetency.[16] If a teacher has signed a written contract of employment offered by the school board with the board's approval, the acquiescence of the board to her teaching during a school month is sufficient evidence of ratification to support a claim for one month's salary.[17] The Idaho Supreme Court has held that the act of the school board in permitting properly certificated teachers to teach without a written contract ratifies the unauthorized contract, even though the statutes stipulate that the contracts be in writing. A suit to recover money paid to teachers of the public school district, on the grounds that no written contract has been entered into, therefore failed.[18]

The statutes of twenty-two states provide that special aid shall be spent only for teachers' salaries or other specified purposes.[19] The California Supreme Court construed this so literally in 1891, that it was held illegal to employ "inspecting teachers, in the absence of any statutes at that time conferring such specific power."[20] The Kentucky Supreme Court, in spite of the state superintendent of public instructions' claim that the school fund could be paid to the teachers only, held in 1895 that the salaries[21] of the superintendent of public instruction and his clerks could be paid legally out of the common school fund.

If public secondary school boards do not comply with statutory stipulations as to length of periods to be covered by teachers' contracts, the contracts are void.[22] The statutes of five states prescribe a minimum salary which local boards can pay to public secondary school teachers.[23] South Carolina has the unusual provision in the statutes of the state that no more than a stipulated maximum salary be paid public school teachers from the regular public school funds provided by the state constitutional tax. However, the local district school board may pay salaries in excess of the schedule, if paid out of district or county funds.[24] Three states provide by statute that local salary schedules of public secondary schools be approved by the state education department.[25] There must be no discrimination in salaries paid to public school teachers on account of sex, according to the statutes of four states.[1]

The statutes of Oregon prohibit the employment of teachers in public secondary schools who wear any religious or sectarian garb.[2] Expenditures of public secondary school funds for any type of sectarian instruction are specifically prohibited by the statutes of twenty-nine states.[3]

The expenditures for teachers' salaries, like other kinds of expenditures for public schools, must be budgeted for the ensuing year, according to the statutes of twenty-two states.[4] The statutes of two states recommend, but do not require, the budget system to be used.[5] Public secondary school boards have no legal authority to expend public school funds for teachers' salaries during a year in excess of the year's

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[1]See key number 1645, Summary Chart.
[2]See key number 1646, Summary Chart.
[3]See key numbers 1665 and 1701, Summary Chart. Expenses for general control must also be included in these budgets.
[4]Section 22, Article 6, School Code, State of Alabama, p. 27.
[5]See key number 1651, Summary Chart.
[6]See key number 1654, Summary Chart.
[7]See key number 1648, Summary Chart.
[8]See key number 1656, Summary Chart.
[9]See key number 1653, Summary Chart.
[10]See key number 1655, Summary Chart.
[11]B. F. Jenness v. School Dist. No. 31, Washington Co. (1869) 12 Minn. 448, 449; Delia G. Ryan v. School District No. 13 of Dakota County (1881), 27 Minn. 433, 434, 8 N. W. 146; Richards v. Richardson, et al. (1914) (Tex. Civ. App.), 168 S. W. 50, 51, 52; Wardell v. Town of Killingly (1922), 97 Conn. 432, 117 A 520, 523.
[12]State ex rel Rhodes v. Bd. of Ed. of Clark Dist., Harrison County, et al. (1923), 95 W. Va. 5, 120 S. E. 183, 186-188.
[13]Charles F. Leland and another v. School Dist. No. 28 of St. Louis County (1899), 77 Minn. 469, 80 N. W. 354; Capehart v. Bd. of Ed. of Graham Dist. (1918), 82 W. Va. 217, 95 S. E. 838, 839; Lawless, County Supt. v. Scholl (1920), 186 Ky. 566, 217 S. W. 681, 682; Taggart v. School Dist. No. 1 of Multnomah County, et al. (1920), 96 Ore. 422, 188 Pac. 908, 911; Bd. of Ed., of Escambia County v. Watts (1922), 209 Ala. 164, 95 So. 498, 500, 502.
[14]Alice B. Malloy, resp. v. The Bd. of Ed., City of San Jose (1894), 102 Cal. 642.
[15]Annie McGinn v. Charles Willey and Adolph A. Jacobs (1907), 6 Cal. App. 111, 91 P. 423.
[16]Walker, et al. v. Walter, et al. (1922) (Tex. Civ. App.), 241 S. W. 524-526.
[17]Steward v. Bd. of Ed. School Dist. No. 2, Stephens County (1924) (Oklahoma Supreme Court), 230 Pac. 504, 505.
[18]School Dist. No. 15 in Fremont County ex rel Baird v. Wood, et al. (1919), 32 Ida. 484, 185 P. 300, 301.
[19]See key number 1649, Summary Chart.
[20]James H. Barry App. v. W. F. Goad, et al. Resp. (1891), 89 Cal. 215, 222, 26 P. 785.
[21]Superintendent of Public Instruction v. Auditor of Public Accounts (1895), 97 Ky. 180, 30 S. W. 404.
[22]Vallejo High School Dist. of Solano County, Petitioner v. Dan H. White, as County Supt. of Schools, Resp. (1919), 30 Cal. App. Dec. 31, 33.
[23]See key number 1658, Summary Chart.
[24]Sections 2, 3, 4, 5, An Act to Provide for the Payment of School Teachers in all Schools in South Carolina, 1924.
[25]See key number 1657, Summary Chart.
[1]See key number 1659, Summary Chart.
[2]Section 112, Oregon School Laws, 1923, p. 41.
[3]See key numbers 1665, 1701, Summary Chart, for a list of these states.
[4]See key number 1646, Summary Chart, for a list of such states.
[5]

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THE AMERICAN
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WM. GEO. BRUCE
WM. C. BRUCE } Editors

EDITORIAL

CITIZENS' ASSOCIATIONS VERSUS BOARDS OF EDUCATION

There has been a marked increase in recent years in the interest manifested by local civic and commercial bodies in the activities of the school system. Some of the organizations have sought to crystallize public sentiment in the direction of progress and educational ideals, and have thus proven an aid to local school administration. An enlightened public sentiment on the mission of popular education can only lead to beneficial results.

With the laudable tendency of an enlarged interest on the part of civic bodies, there have come to the surface also here and there the embarrassments of an overzealous activity. The public press in many sections of the country has noted the protest meetings and the adoption of resolutions condemnatory of some action taken by the local board of education.

The fracas usually has its beginning in the dismissal of a superintendent, principal or teacher. The friends of the dismissed person are aggrieved and not only register their displeasure in a public meeting, but seek to compel the offending school authorities to rescind or reverse their action. The school board that has proceeded with due deliberation and circumspection, and possesses real backbone, will not flinch, and will brave the issue to the finish.

When a combat between the general public, or a fraction of that public, and the school board regarding a dismissal is engaged in, it means that some one has challenged the judgment of the latter. It means, too, that the protesting citizens' organization believes its judgment to be superior to that of the school board.

The assumption must be, however, that the regularly constituted body, entrusted with the duty of administering a school system is better fitted to judge the merits and demerits of those employed therein, than is a loosely jointed citizens' organization. The one sees the schoolworker from the professional side, the other from the social side. Mr. Citizen has met Miss Schoolmistress and deems her a mighty fine lady. Mr. School Board agrees to that estimate, but he also has information to the effect that she is a poor teacher. He may also have information regarding the professional ability of the superintendent or the principal which Mr. Citizen has not.

It is, by no means, claimed that a board of education is always infallible in its findings, but when it comes to choosing a staff of school executives and classroom workers, the task must be entrusted to the regular official body, and not to a neighborhood civic club. Citizens who differ with the school board should make their views known to that body. Public protest is always unwise in that it invariably results in bitter feeling and embarrassment, and in the end settles nothing.

The professional worker who has been dropped from the school board payroll usually makes a serious mistake when he or she seeks reinstatement through protest meetings and public hearing. The language employed at protest meeting is usually intemperate and vindictive, and the hearings always bring out the uncomplimentary as well as the complimentary. Professional prestige suffers rather than gains in a combat of this kind.

If conditions arise where the efficiency of a school board can consistently be questioned, it follows, too, that instances do come up where the qualifications of a superintendent, a principal, or a teacher may be doubted. The choice of a teacher must be left to the superintendent, the choice of a superintendent must be left to the school board, and the choice of a school board must be left to a taxpaying public. In no instance can the selection of a superintendent, principal or teacher be left to a public mass meeting. The board of education, and no other body is there to administer the school system.

THE DIVIDING LINE BETWEEN SCHOOL AND HOME RESPONSIBILITY

There is no question that there is a growing tendency to shift the responsibilities of the home to the school. It is also evident that the American school has, with characteristic readiness, expanded its scope of service, and has in addition to affording educational facilities, assumed the task of putting the school child into a teachable condition.

On the other hand, the American home finds itself invaded with the distractions caused by the modern modes of transportation, of recreation, and of pleasure. Men enter with greater intensity upon gainful occupations; women assume with greater zest social activities. The quiet and stability of the home is thereby disturbed.

The result is that the disciplinary influences which parents inherently exert, or ought to exert, over their offsprings are thoughtlessly shifted to other channels. Under these circumstances, the school becomes the clinic where the physical and moral needs of the child are supplied.

Whatever views one may hold as to where the dividing line between parental and school responsibility ought to be drawn, the common conclusion must be that the task of sending a child in a teachable condition to the school is clearly upon the parent.

The school may have at its command better facilities for discovering physical defects than those at the command of the home. But that is a matter of expediency and does not alter the principle of parental obligation.

"If a child can not see the blackboard; if he can not hear the teacher's voice; if he can not stand erect or if he can not breathe with his mouth shut; if he has not had breakfast or if he has not had enough sleep; how can he compete with children who are not handicapped by these or any other difficulties." So says a recent bulletin issued by the United States Bureau of Education. "It is to be expected that children who go to school handicapped by defects or by lack of training during the pre-school period, and who consequently fail in their work, will be discouraged at the outset. They will have a feeling of inferiority because they are stigmatized as repeaters."

The same authority adds: "Since school life is inevitable for most of the children in the United States, responsibility for the preparation of the children for school during the pre-school period, rests squarely upon all parents, whether they realize it or not. Increasing demands are made upon parents with the enactment and enforcement of compulsory school laws from time to time."

It will remain largely with the local school authorities to impress upon the parent constituency the fact not only that the pre-school obligation to the child is vital, but that the same obligation continues throughout the school life of the child.

THE RESEARCH IDEA IN SCHOOL ADMINISTRATION

If school administrative effort in the United States is steadily gaining in efficiency, it is in part at least because the statistician and the research expert have come upon the scene. They assemble facts and figures and interpret them for budget and curriculum use, thus enabling the administrator to proceed upon his task with greater deliberation and assurance.

That this new influence has come to the aid of school administrative service with an earnest determination became manifest at the recent meeting of the Department of Superintendence held at Washington when Bruce's Bulletin registered the attendance of a considerable number of school statisticians and research directors. Their presence which was indicative of the constant progress that is going on in the school field, as applied at least to the larger communities, was also somewhat of a revelation. It was the signal that the expert had arrived and would remain.

This belief is strengthened in the fact that the research expert in school administration has his prototype in the efficiency expert who serves in the channels of commerce and industry. Here the effort has been to establish better production and to introduce "short cut" methods and thus eliminate the waste of time, effort, and materials in production operations. The success which has attended these efforts has demonstrated their utility. What science has done for the administration of the modern industrial plant it may do for the administration of the school plant.

The research expert in education enables the administrator to secure a better grasp upon facts and problems and to determine with greater accuracy the route to efficiency. He penetrates the financial affairs of a school system and brings order, system, and method into its business operations. The modern school budget is an achievement in the direction of sound financial housekeeping.

But, the research expert enters upon even a larger task when he deals with the purely educational considerations of a school system. Types of organization, teaching methods, and outline of courses of study which obtain in the average school of this country are by no means fixed entities. Their adjustment to the present day findings and needs is yet to be completed. At least they are subject to further adjustments.

True, the modern research bureau as applied to school administration is still one of the privileges of the larger community. The smaller cannot afford it. But, it may follow nevertheless that the results of the experimentation carried on in the larger school systems may carry some suggestive value to the smaller. Again, the time may come when groups of smaller communities may, upon some part time basis or cooperative plan, bring the research expert into their service.

One of the gratifying symptoms is noted in the smaller communities where the superintendent digs deeper than ever into the problems that confront him. He brings these to the surface and bares them in simple factors. In many instances he begins to resort to charts, graphs, and diagrams. The school board secretary, too, brings his statistical labors under comparative analysis and resorts to scientific accounting and budget making.

The criticism has frequently been advanced that while the schools might be certain as to pedagogical method, or as to the quantity and quality of service rendered, they were uncertain as to the ultimate value of the output. The success of an industrial enterprise is

measured in the light of the capital invested by the volume of production and the earnings made. The net earnings of a school system, however, have hitherto remained a matter of mere estimate and conjecture.

With the advent of the research expert in the domain of school administration, much that was heretofore hidden in a haze of doubt is now clarified and lifted into bold relief. Mental tests are no longer an experiment of questionable import. They enable policies and conclusions as to educational processes and production that are scientifically sound and reasonable.

At any rate it is gratifying to note that the American school administrator is bringing into his counsels the service of science as a factor in achieving economy and efficiency.

SOUNDING A NOTE OF CAUTION ON SCHOOL COSTS

The subject of taxation, as applied to state and locality, is just now receiving considerable attention at the hands of economists and experts. In current financial periodicals, the contention is made that taxation in this country is mounting to an alarming degree and that the time for a halt is rapidly approaching.

In substantiation of this charge the financial world is told that "the state and municipal bonds sold in 1901 amounted to $131,550,000 whereas in 1924 and 1925 these sales have exceeded the amazing annual amount of $1,390,000,000." At the same time, we are informed that "the national debt was reduced by about $4,250,000,000, while the federal governmental expenditures were reduced about $2,000,000,000 annually."

These figures we are asked to keep in mind by Roger W. Babson in Forbes's Magazine, and note that just the opposite trend has taken place in state and local governments. "From 1920 to 1926 state and local governments increased their debt by about $6,750,000,000," he says. "They increased their current expenditures more than $2,000,000,000 and the tide is still rising."

The contention is made that while we are beginning to economize nationally, we are more extravagant than ever locally. "How much does it help you," says this expert, "to have the federal government save you $4,000,000,000 of debt, if local governments immediately pile on annually $7,000,000,000?"

This prompts us to turn to the several items that usually go to make up our local expenditures. There we find that government in all its departments is encountering higher costs. Every form of construction project involves higher prices for material and labor. The salary lists, too, have not only been enlarged but a higher compensation is necessarily paid.

The item that looms up on the state and municipal expense sheet as being somewhat new is the one dealing with road making. With the evolution of the automobile and the truck, has come the era of good roads and much money has gone into their construction and upkeep. Local government, too, is exposed to the newer demands in the direction of safety and sanitation measures which an advanced civilization calls for.

The largest single item in every municipal budget is that which goes for education. It usually runs from 25 to 40 per cent of the total. Being the largest item, it is subject to the greatest scrutiny. The American people are generously inclined when dealing with the schools, and yet there are municipal demands along lines of police, fire, and health protection which have a legitimate claim on the tax funds and which cannot be slighted.

The economists who are viewing the financial situation, as applied to nation, state, and locality, hold that the latter is the worst offender and that local prodigality must sooner or later be checked. Babson says: "One way is to let the riot run on until conditions reach such a pass that they can be cleaned up only by violent upheaval and catastrophy. We can let the joy-ride speed on until it brings up with a crash against a stone wall, in a crash that might involve all business throughout the length and breadth of the nation. Or we can take the opposite course and begin to get back to our senses now before we have gone too far, before we have reached a point where there is nothing left but a volcanic reorganization."

Considering this note of warning from the standpoint of school administration, our first impulse would be to regard the situation with complacency on the assumption that a reasonable degree of economy now characterizes the running of the American schools. If the alarm of the economists is well taken, then it also follows that school administration will in future be subjected to more rigid scrutiny.

Be that as it may, we have contended in these columns, and so contend again, that radical cuts in the administration of the schools cannot be looked for unless a lowering of standards is to follow. And such lowering is entirely against the American spirit and not necessitated by any financial stress, present or future.

The caution which has been sounded can only mean that school administrators must redouble their efforts in the direction of a wise expenditure of every dollar placed in their hands, effecting economies wherever this can be done without impairing the service. Where this is done extravagance cannot consistently be charged, nor can or will any one seek radical reductions in the administration costs of the schools.

The extravagances which, no doubt, exist here and there must be discovered and eliminated. It is easier to defend a school budget that is economically constructed than to defend one which contains useless items, even though the items be small. The school administrators must be able to defend every budget item if unwise cuts are to be successfully resisted.

THE QUESTION OF NAMING SCHOOL-HOUSES

Something of a commotion was created when the board of education of New Rochelle, N. Y., concluded to rename the two million dollar Woodrow Wilson Memorial High School by calling it the New Rochelle High School. Several newspapers criticized the action. Others have praised it.

The Philadelphia Inquirer in commenting on the change said:

"There could be no element of partisanship in honoring the memory of a President of the United States. Everybody did not agree with the policies of Woodrow Wilson, and he served at a time of great excitement and bitterness, but all reasonable persons concede that he was one of the outstanding characters of the war, and it is fair to assume that he was guided by high motives. But aside from all controversial questions he was the head of the nation for eight years and was certainly entitled to the distinction of having a public school named after him. Indeed, there was peculiar fitness in so doing because Mr. Wilson had won prominence as an educator long before he reached the White House, and is regarded as one of the most cultured of the long line of men who have sat in the presidential chair."

The editor then charges the New Rochelle board with playing the poorest kind of peanut politics, closing by saying that: "It is not a matter of great importance, but the news from New Rochelle illustrates a pettiness not pleasant to contemplate."

We cannot quite agree with the Philadelphia editor. What he states about Woodrow Wilson is true, but when it comes to naming a schoolhouse, more particularly a high school which is the pride of the town, we are dealing with another question. It is also true that Wilson is no longer among the living and that his memory as an educator and statesman deserves to be perpetuated. But, Wilsonism, as a partisan factor in American politics, is not dead. This was amply demonstrated in the last national campaign.

Whether there have been those in or out of the board in New Rochelle who sought to make political capital out of the name is not known to us. If the present school board dropped the name simply as a part of the game of politics it is subject to criticism. But, the assumption must be that the board knew its own business best and acted advisedly.

The Chicago Journal of Commerce takes the following position: "School buildings, erected by money collected from all taxpayers, should not be given names offensive to a large portion of the citizens of the community. We do not permit denominational or other religious teachings in our public schools, and so long as a man's name, however great, continues to arouse violent feelings of a partisan nature, it should not be given to school buildings, in our opinion. The name first chosen carried the idea that it was to be erected as a memorial to Woodrow Wilson. That was not true. It is being constructed to provide high school education for the youth of New Rochelle. Woodrow Wilson High School, perhaps, would not have stirred so much commotion; but the inclusion of the word 'memorial' in it was too much for a board composed entirely of Republicans."

Besides, the naming of a schoolhouse is a local matter. The people who pay for the construction and maintenance of school buildings have the right through their accredited representatives, to honor either national characters or local celebrities in naming such structures.

Small school buildings are more expensive in administration and in the cost of school supplies and equipment than are large school buildings. Small buildings require practically as many deliveries as large buildings and the small quantities which they require makes the cost of delivery correspondingly more expensive per unit.

* * *

School boards can benefit by having all their bond issues put through their regular bank depository. When arrangements are made by banks other than depositories, a charge of one-fourth of one per cent is made for handling collections of bonds.

* * *

Blackboards should never be washed in the opinion of some school custodians. They should be cleaned dry.

If blackboards must be washed, they should be carefully rubbed dry with clean rags and should not be allowed to dry by evaporation.

* * *

The economy of Battleship linoleum floors is negligible if these are laid on wood sub-floors which in turn are placed on top of the concrete floor slabs.

* * *

St. Louis estimates that the cost of replacing school cafeteria equipment approximates eight per cent of the original cost annually.

* * *

Denver makes daily deposits of all cafeteria receipts and receives interest from the banks which accept these deposits.

* * *

Cafeterias are sometimes placed in school buildings on the top floor on the theory that this will prevent odors from traveling through the school building. A drawback of top floor cafeterias is their distance from the playground.

Architectural Acoustics as Applied to Auditoriums

Valuable Study by Expert of the U. S. Bureau of Standards

The design of school auditoriums frequently involves the problem of correct acoustics and when this element is not taken carefully into account serious troubles arise. The inquiries from school authorities which come into the office of the SCHOOL BOARD JOURNAL indicate that the planning of school auditoriums for good acoustical effects is not generally understood by architects and is rarely thought of by superintendents of schools and school boards who are charged with the duty of approving plans for the school buildings.

In this connection the United States Bureau of Standards has recently issued an official document on architectural acoustics which is of value to school authorities and school architects. The author is Mr. Paul R. Heyl, senior physicist, in charge of the Sound Laboratory of the Bureau. Mr. Heyl analyzes the usual acoustical difficulties of auditoriums as three—*echo, dead spots,* and *reverberation.* He says:

In the usual sense of the term, echo means a definite or articulate repetition of a sound after an interval at least equal to the total duration of the sound that is being repeated; while reverberation means a confused or inarticulate prolongation of the sound. Echo is always a bad feature in a hall; reverberation, on the other hand, is desirable up to a certain point; only in excess is it an evil. Of the two, echo is the more difficult to remove; prevention by foresight in construction, aided by expert advice, if necessary, is the best plan.

1. Echo

Echo arises by regular reflection of sound from smooth walls, ceilings, or proscenium arches just as a mirror may reflect a beam of light without scattering it. If, however, the surface of the mirror be roughened, the reflected light will be diffused in all directions; and if the walls and ceilings of a room be similarly irregular (on a sufficiently large scale) the reflected sound will be scattered, broken up, and its definite or articulate character destroyed. In this case we have what is called reverberation.

The lapse of time before an echo is heard is due to the fact that the reflected sound has traveled a longer path than the sound which comes directly from the source. This difference of path may be such as to cause mischief. The reflected sound of a spoken syllable or of a note of music may arrive at the ear at the same moment as the succeeding syllable or note which has traveled by the direct path, and so cause hopeless confusion.

Generally speaking, auditoriums are less likely to exhibit troublesome echo when their outlines are rectangular. An instructive case of the trouble that may be caused by curved walls is cited by Watson in the case of the auditorium at the University of Illinois, with an approximately circular floor plan and a hemispherical dome. The best that could be done in the way of after correction of the acoustics of the room was only partly satisfactory. Watson regards the complete cure of such a room as hopeless without "surgical treatment"; that is, straightening the walls.

Smooth, hard-finished walls, such as the usual plastered type, are excellent regular reflectors of sound and are consequently likely to produce echo. It becomes of importance, therefore, to break up such surfaces so as to produce irregular distribution of the reflected sound. This is usually done by coffering in the case of ceilings. Examples of this may be seen in many theatres of modern construction. The ceiling and, perhaps, the proscenium arch are broken up into depressions about four feet square, containing a succession of steps totaling a depth of, perhaps eight or ten inches. An irregular surface of this character breaks up the reflected sound and distributes it in such a way as to minimize echo, and, in fact, to convert it into reverberations. The dimensions which should be assigned to such coffering are not a matter of taste or accident. If the wave length of the incident sound is very large compared to the size of the irregularities it encounters, there will be little dispersive effect produced; and if very small, the smooth spaces inside the coffering may act as regular reflectors. The size mentioned, four feet in diameter, is a compromise between the average wave length of the male and the female voice.

2. Dead Spots and Sound Foci

Dead spots and sound foci occur as a consequence of echo-producing conditions. Sound travels through the air as a wave of alternate compression and rarefaction, and if a reflected sound wave is retarded by the proper amount it may happen that the compression of the directly transmitted sound and the rarefaction of the reflected sound arrive at the ear at the same time, neutralizing each other's effect and producing a diminution in intensity. If the reflected sound is retarded a little more, it may happen that two compressions coincide, producing an unusually loud sound. The most usual cause of such sound foci, however, is a curved wall or ceiling which concentrates the sound to a focus.

Since dead spots and sound foci arise from the same cause as echo, their removal may be brought about by the same treatment. Some care and experience is necessary in order to locate the particular portion of the room which is responsible for the production of a dead spot. Often this can be found only by a cut-and-try experiment, as it is not possible to predict the path of reflected sound with the same accuracy as in the case of light. The reflecting portion once found must be treated in such a way as to decrease its power of regular reflection.

W. C. Sabine mentions a case of a theater, the ceiling of which contained a flat oval panel, to which such trouble was traced. In this case an irregular canopy, oval in plan and slightly larger than the panel, was hung just below it with good effect.

3. Reverberation

A sound produced in a room is reflected back and forth from walls, floor, and ceiling, a portion being absorbed at each reflection until its intensity is so reduced that it becomes inaudible. Owing to the high speed of sound, there may be many such reflections in the course of a single second in a room of ordinary size; and the greater the dimensions of the hall the more prolonged will be the reverberation.

If the walls of the room are covered with some highly sound-absorbent material, such as hair felt, two or three reflections may suffice to destroy the sound. Such a room is acoustically "dead" and undesirable. A little reverberation is necessary to satisfy our established tastes and auditory habit, and the desired amount of reverberation is found empirically to increase with the size of the auditorium.

It is customary since the pioneer work of Sabine to define the "reverberation time" of a room (perhaps, somewhat arbitrarily and artificially) as the time taken for a sound of specified intensity to die away to inaudibility. This standard intensity is a sound ordinarily painful to a normal ear at close range and is difficult of reproduction. Fortunately, its use is not necessary in ordinary practice, for since Sabine's day the "reverberation time" of a room is a matter of calculation rather than experiment. The method of making this calculation will be explained later.

Experience with a number of existing auditoriums of acceptable acoustic quality makes possible the formulation of the following table, in which the acceptable limits of the standard reverberation time are expressed for rooms of different volume.

TABLE 1

Volume of room in cubic feet	Acceptable limits of reverberation time in seconds	
	Half audience	Maximum audience
10,000	0.9-1.2	0.6-0.8
25,000	1.0-1.3	.8-1.1
50,000	1.2-1.5	.9-1.3
100,000	1.5-1.8	1.2-1.5
200,000	1.8-2.0	1.4-1.7
400,000	2 1-2.3	1.7-2.0
600,000	2.3-2.6	1.8-2.2
800,000	2.5-2.8	1.9-2.3
1,000,000	2.6-2.9	2.1-2.5

The limits given in the table are not to be regarded as rigid. Auditoriums are known which exceed these limits in either direction by several tenths of a second and yet are of fairly satisfactory quality. However, in planning a new auditorium it should be the aim to strike the average of the range given.

Mr. Heyl offers elaborate formula for calculating the verberation time of a room and suggests a table of sound absorption powers which various materials possess. It is most interesting to note that an open window is the most complete absorber of sound known. The sound passes out of the window but practically none is returned. The next most perfect absorber of sound is hair felt, which absorbs possibly half as much sound as an equal area of open window. The coefficient for hair felt is commonly given as 0.50. Other materials which have a high coefficient for absorbing sound are: Akoustolith (artificial stone), heavy carpets with lining (.25), Celotex (.31), chenille curtains (.23), flax, 1 inch thick (.55), hair felt with painted membrane (.25 to .45), stage openings (.25 to .40), ventilators (50 per cent open space) (.50). The highest coefficient is hair felt two inches thick with unpainted membrane (.70). Individual objects in a room have a strong absorbing influence. Every person in an audience thus is a 4.7 coefficient. Settees upholstered in hair and leather have a sound absorbing coefficient of 3. Wood seats in an auditorium have a small coefficient of only .100.

Planning Auditoriums

Mr. Heyl makes the following suggestions for planning an auditorium: In planning an auditorium we must consider three factors—shape, size, and interior finish.

As stated in discussing echo, the design of an auditorium should avoid curved walls or ceilings. An attempt to introduce such features for their artistic effect is almost certain to be detrimental to the acoustic quality of the room. Auditoriums of a rectangular shape have been the most uniformly satisfactory.

Prior to Sabine's work there was current an idea that there should be a certain ratio existing in the dimensions of the room; just what ratio no one seemed to know certainly. Sabine quotes several different recommendations. Modern opinion regards such a ratio as immaterial unless, of course, it be carried to an absurd extreme, such as a very long and narrow room.

The question of size must be determined principally by the purposes for which the room is to be used and not by considerations of space available or seating capacity desired. True, modern amplifying practice makes it possible to use a very large auditorium for speaking, but the present discussion is limited to the consideration of natural features and characteristics. The alteration of quality and the noise introduced by amplifiers are such that they will require much improvement before they will be

(Concluded on Page 140)

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WASHINGTON CORRESPONDENCE

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Lengthened School Day Unpopular

A proposal recently presented to the District of Columbia board of education caused considerable discussion among the members because of the lack of machinery for obtaining the opinions of the parents of boys and girls in the District schools. With the assistance, however, of one of the city daily papers an entirely new method (at least for the District) was adopted. The newspaper conducted a referendum.

The question before the board was a proposal to lengthen the regular school day and eliminate home study. The advocates of this movement pointed out the desirability of supervised study, which can be carried out only in the school, and the rather general neglect of home study under present conditions. This is due, it is alleged, to present social and economic conditions resulting in small living quarters for families, which makes it impossible in many cases for the home to give its children a proper place for their home work. Also, it is due to the increased attractions outside of the home—social activities and amusements, which takes time that should be devoted to home study. The motion picture is quoted as one of the most important of these.

The school board itself undertook to secure the opinions of parents who are members of the parent-teacher associations and other civic organizations. Thirty-six such organizations voted upon the matter in regular meetings. All voted against the proposed change; the vote in each organization being overwhelmingly against it. The daily paper referred to undertook its survey to get the opinions of parents **not** belonging to these associations. It used a questionnaire. The result was similar to the votes of the organizations, four out of every five individual votes being against the change.

The action is of interest, not so much because of the question itself, but because of the method used to determine the opinions of the parents. With the great present interest on the part of the daily paper in educational matters, it is a method which may be used in any school district, city or county. The newspaper brings the matter to the attention of its readers, it discusses both sides of the question, and it prints a ballot which may be cut out, filled and returned to the newspaper office by parents and others interested. The method, of course, has against it the regular objections to any "straw" vote; nevertheless when proper safeguards are taken it gives a fairly accurate cross-section of public opinion on the question submitted. The District of Columbia board seems pleased with the results and plans to use the same method again when other questions come before it on which the members feel the need of knowing the opinions of the school patrons.

Teachers' Retirement Law, District of Columbia

Congress, just before adjournment, passed an important amendment to its act of 1920 providing for the retirement of teachers in the public school system of the District. The age of retirement remains the same: any teacher who has reached the age of 62 may be retired by the board on its own motion, or shall be retired if application is made by the teacher. Any teacher who has reached the age of 70 must be retired unless by two-thirds vote of the board it is deemed essential that he be held longer for the good of the service.

After retirement either for age or disability, a teacher receives an annuity of one per cent of the average salary received during the ten years immediately preceding retirement multiplied by the number of years of teaching. To this is added $15 contributed by the Government, multiplied by the number of years of teaching. The maximum average salary allowance is $2,000; and the maximum years of service, 40, the minimum 20.

In order to provide the part of this annuity not contributed by the Government, a deduction is made each month from the teacher's salary. The money thus withheld is deposited in the United States treasury and credited with four per cent interest, to the teacher's account.

The amount deducted is in accordance with annuity tables prepared by the Commissioners of the District. It must be sufficient so that with interest at four per cent, it will purchase an annuity equal to one per cent of the average annual salary during the last ten years before retirement, but in no case shall exceed eight per cent of the salary.

The old law provides for deductions of from four to eight per cent on basic salaries. The change from basic salaries to average salary during the last ten years of service is of advantage to the teacher as it permits a larger annuity. Under the old law the Government contribution to the annuity is $10 for each year in teaching service; under the new law, it is $15. Under the old law the minimum annuity for retirement because of age is $480 a year. Under the new it is more, as it is one per cent of the average salary for ten years plus $15, multiplied by 20. It is, therefore, for a teacher who has been receiving the minimum teaching salary, $540.

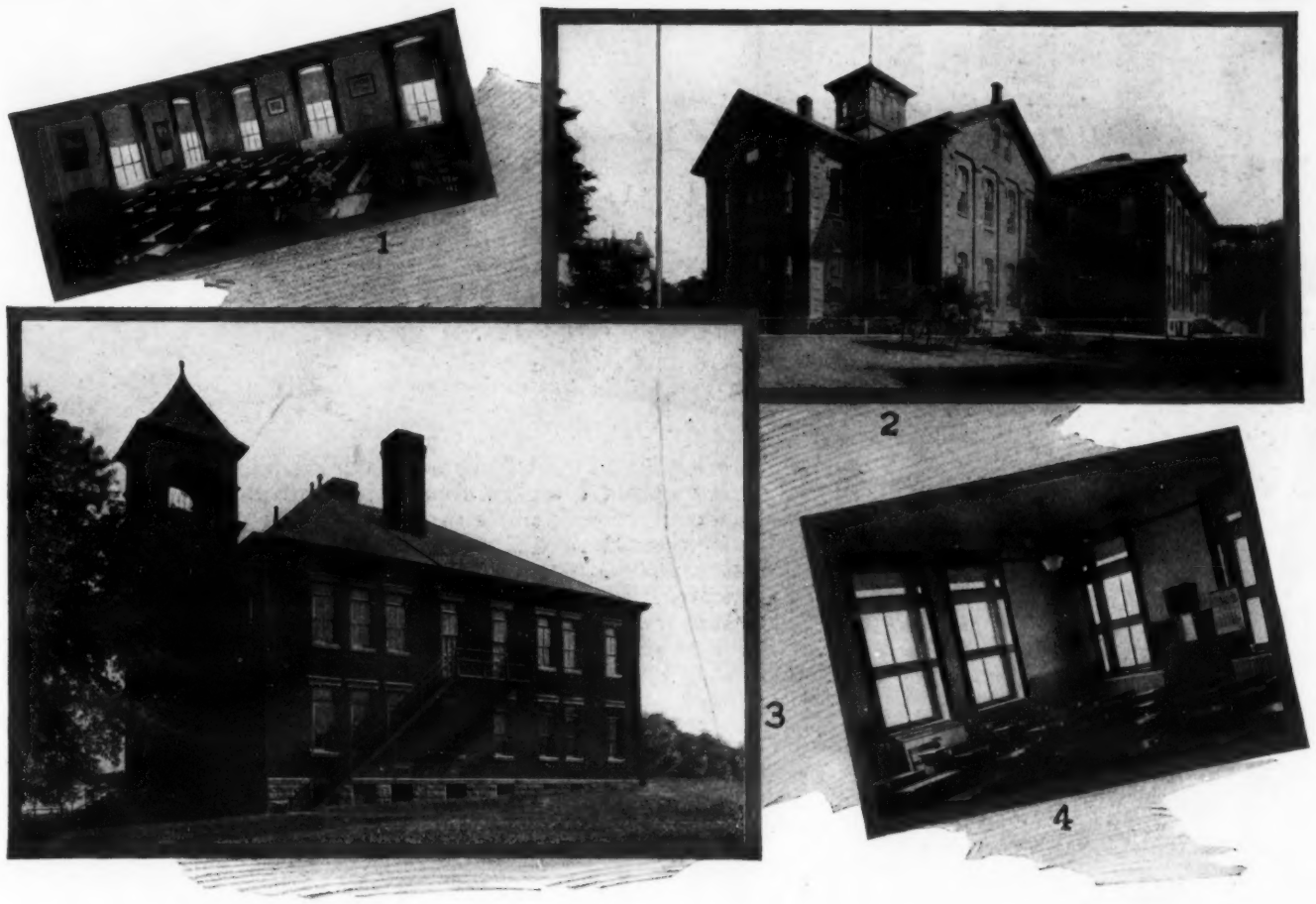
Community Center Department of Washington School Department

The recent selection of Miss Sibyl Baker as Director of the Community Center Department of the Washington School System to succeed Mrs. C. N. Broy, resigned, has brought to the attention of the public the splendid work this department is doing.

This department, authorized by Congress in 1917, began operation July first of that year. It is under the immediate direction of a Director with two assistants, one for white centers and one in charge of activities in the centers for colored. There are also nineteen secretaries, one for each of the nineteen community centers. Seven of these are full-time secretaries, the others part time.

These centers are in school buildings, selected because of favorable location and of equipment for the special needs of community programs, such as auditoriums, gymnasiums, music rooms, and swimming pools. Those centers in the Central high school, and the Dunbar high school (for colored), are perhaps the most widely used because of their large auditoriums suitable for large meetings.

(Concluded on Page 74)



(1) Classroom in Catawissa, Pa., School, and (2) exterior view of the building, where Peer Vent Units were installed to supplement direct radiation. (3) Another old building, John Porter School, Easton, Pa., where Peer Vent Units have been installed, and (4) one of the classrooms.

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PEERVENT

HEATING AND VENTILATING UNITS

(Concluded from Page 72)

In all of the centers, various clubs and groups meet regularly each week. During the past year there were 212 such groups. They are as follows:

Dramatic clubs and groups	11
Social clubs	17
Rhythm clubs and classes	13
Language clubs and classes	11
Industrial arts, handwork, and home economics groups	42
Athletic clubs and groups	53
Musical organizations, public speaking groups, etc.	65

In addition to the clubs and groups meeting regularly, there were many community uses of buildings by civic, patriotic and educational organizations.

Commercial Testing Laboratories

Purchasers of building material for schools and other purposes are making use more and more of independent commercial testing laboratories equipped to determine whether material being used is up to specification requirements.

A list of qualified laboratories has been prepared by the U. S. Bureau of Standards and is ready for distribution. It is as complete and accurate as possible. As well as private laboratories there are included university and college testing laboratories which often do testing at no cost for the states in which located, and for state institutions and public schools.

The existence of a thoroughly classified list of commercial testing laboratories, together with a list of other reliable "checking agencies," will have a number of beneficial effects in promoting the use of specifications, not the least important of which will be the inducement offered to the large number of purchasers who have hitherto hesitated to buy on specifications.

In the past, purchasers not individually equipped to make their own acceptance tests have been reluctant to adopt the specification method of buying commodities because of the fixed belief that many manufacturers work off "seconds" on such customers. The knowledge that they can at any time, when they so desire, call upon testing laboratories to check the deliveries made to them on contracts based on specifications with which certificates have been issued by the manufacturers will induce a large number of such purchasers to take full advantage of the certification plan.

At the present time a very great majority of the purchasers who should be using specifications are not doing so. It is to this great group of purchasers that the certification plan will prove most beneficial. If, in addition to obtaining copies of as good specifications as can be written at the present time, all purchasers are able to secure lists of firms willing to manufacture to these specifications and to certify to compliance therewith, and lists of testing laboratories and checking agencies, many of these purchasers will readily adopt the specification method of buying. This is especially true of the purchasers of states and municipalities and school systems.

U. S. Bureau of Standards Tests on Gypsum-Lime Mixes

In plastering it is common practice to use a mixture of calcined gypsum and lime putty for the finish coat. The lime employed may be either hydrated or quicklime. If the latter is employed, it is slaked on the job.

The properties of lime-gypsum mixes with reference to time of set, tensile and compressive strength, shrinkage, and plasticity have been determined by the Bureau of Standards in which the composition has been varied by five per cent increments from 100 per cent lime to 100 per cent calcined gypsum.

In view of the results obtained in this investigation it is believed that the following conclusions are justified:

1. Quicklime and hydrated lime when added in small amounts to calcined gypsum accelerate the time of set. Maximum acceleration occurs when about ten per cent by weight of hydrated lime is present. Above 50 per cent hydrated lime, retardation occurs which becomes marked at about 70 per cent when the time of set approaches that of pure lime.

2. Hydrated lime in small amounts (less than ten per cent) increases the tensile strength of calcined gypsum. A calcined gypsum-hydrated lime mix, rich in hydrate (in excess of 85 per cent) has a greater tensile strength than a mix of like composition containing an equivalent amount of quicklime.

3. The addition of lime to calcined gypsum in all amounts lowers the compressive strength. The compressive strength of gypsum-hydrate mix is greater than that of a gympsum-quicklime mix where the lime content is equivalent.

4. Lime may be added to calcined gypsum without affecting the shrinkage of the set mix, to a definite percentage, above which the further addition of lime increases the shrinkage.

5. Lime in all proportions increases the plasticity of calcined gypsum.

National Committee on Materials of Instruction

This committee, recently appointed by the U. S. Commissioner of Education, has organized with Dr. J. J. Tigert, commissioner of education, chairman; Dr. C. R. Mann, director American Council on Education, secretary; and Dr. C. H. Judd, head of the School of Education of the University of Chicago, director. These three constitute an executive committee under the guidance of which the general committee will function.

The general committee, in addition to the three named above, includes:

Miss Mary McSkimmon, former president, National Education Association.

Dr. W. B. Owen, president of the Chicago Normal College.

Dr. Randall J. Condon, superintendent of schools of Cincinnati and president of the Department of Superintendence of the National Education Association.

Mr. S. D. Shankland, executive secretary, Department of Superintendence.

Hon. J. C. Wright, director, Federal Board for Vocational Education.

Hon. A. B. Meredith, commissioner of education of Connecticut.

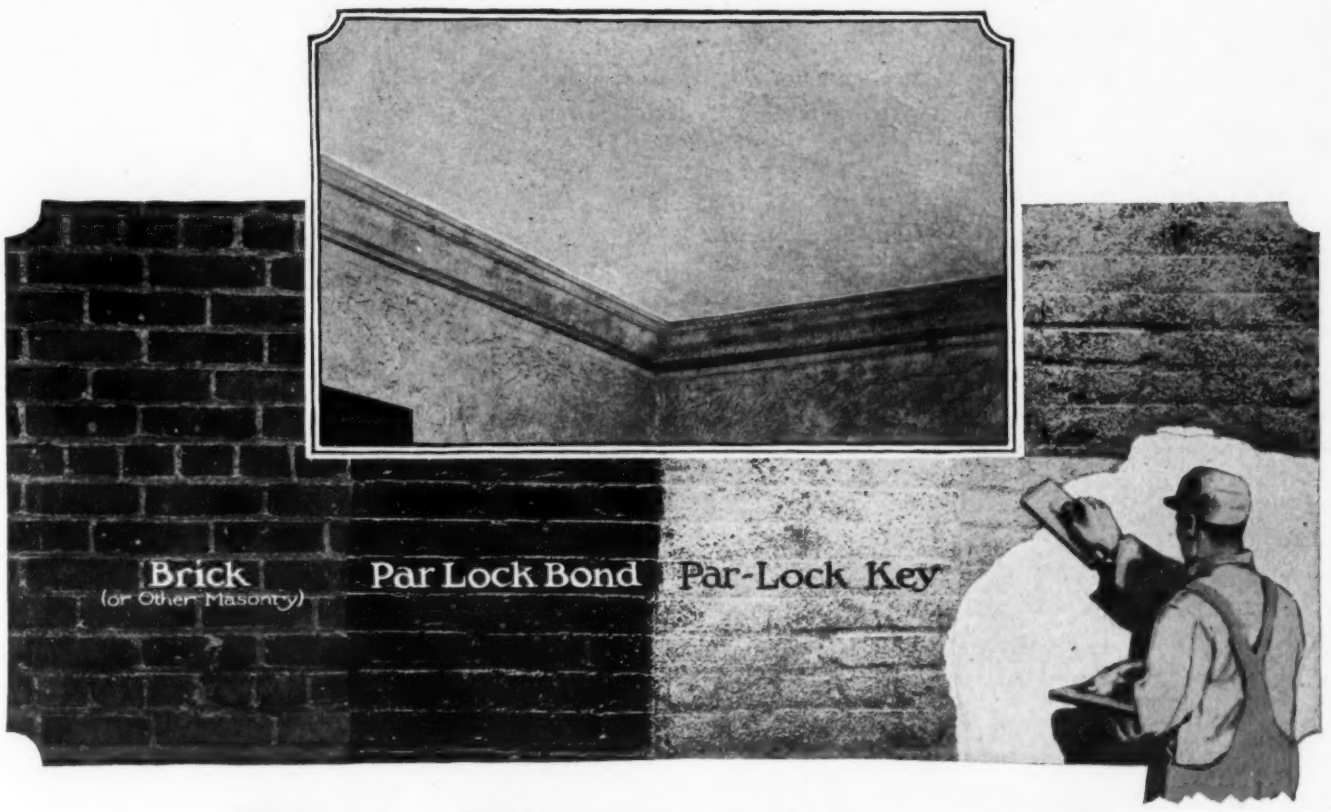
Mr. Matthew Woll, American Federation of Labor.

Mr. A. W. Whitney, National Safety Council.

Dr. George A. Works, professor of rural education, Cornell University.

Mrs. Susan M. Dorsey, superintendent of schools, Los Angeles, California.

The purpose of this committee is to collect, analyze and interpret materials which may be used by those who are engaged in curriculum study and curriculum reorganization. It does not intend to duplicate work on curriculum now being done by other committees but rather to correlate such studies and supplement them with a wider and more general attack than can be applied by other organizations.



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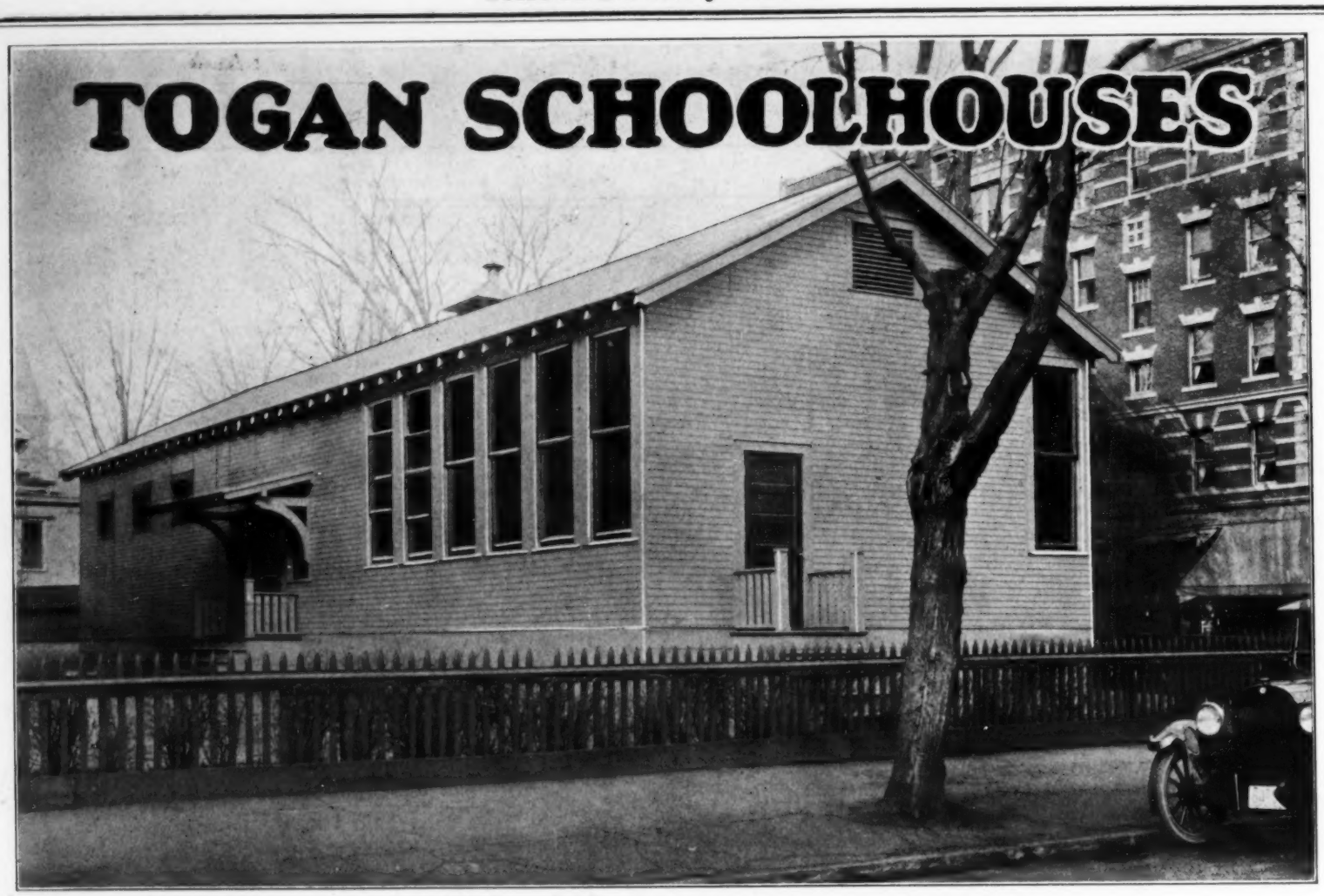

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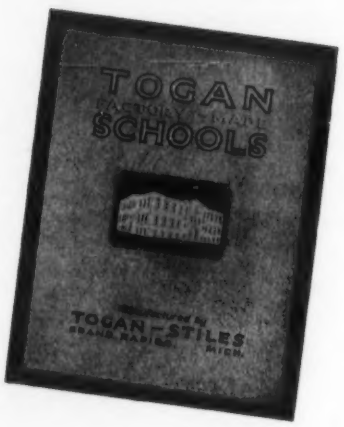

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THE HEIGHT OF KINDERGARTEN CHAIRS

H. E. Bennett

In a recent article which has had wide circulation under the caption, "School Seats Too High," attention was called to an almost universal tendency in our schools to provide children with school seats too high for them. Continued investigations since that article was written have confirmed that conclusion in most emphatic manner, and have extended its application with peculiar force to the kindergarten.

Two hundred and forty-seven kindergarten children were measured. The correct seat height of each was determined to the nearest quarter inch. Results are summarized here:

8½ inches	1
9 to 9¾ inches	57
10 to 10¾ inches	116
11 to 11¾ inches	68
12 to 12½ inches	5

Expressed as unitary percentages, this distribution indicates that kindergarten chairs for this group would be required as follows:

23 per cent	9 inch
47 per cent	10 inch
28 per cent	11 inch
2 per cent	12 inch

Inquiry discloses that kindergarten chairs are nearly always selected in twelve and fourteen inch heights, that some of the largest dealers in the country have discontinued the sale of ten inch chairs entirely because there is practically no demand for them, that several types of these chairs are no longer made in ten inch heights, and that there is an increasing demand for them in fourteen and even in sixteen inch heights. Dealers protest that it is so difficult to sell kindergarten chairs lower than twelve inches that they cannot afford to carry them in stock.

In the face of these facts it is necessary to justify the figures given above.

The children included in these measurements are the entire enrollment of three typical kindergartens of a most excellent Western city system of schools. One is located in a section of the very best social, financial and sanitary conditions and an almost exclusively American population. Another is in an industrial section where the population is largely foreign, particularly South European, with the usual conditions of retardation, low standards of living, and tendency to make the kindergarten serve as a day nursery for the children of mothers employed in industry. The third is an average section. The measurements were made in November but included both those who entered in the fall and those who entered the preceding spring. Nearly all were between five and six years of age, with a few lacking one or two months of five and about as many over six. The children of the more fortunate community average slightly larger than the others and include all five whose seat height is twelve inches, none of whom are retarded.

The technique of measurement is particularly important. A very elaborate and effective measuring chair has been developed in which more than 3,600 children of all grades have been measured thus far. Some twenty measures relating to seat dimensions are obtained and recorded for each child, and from these data various problems of seat and desk design and proportions are being worked out. We are here concerned only with the method of determining seat height. For this purpose there is a moving footboard which elevates the subject's feet with reference to the seat. Under the knees there is a sliding strip by moving which one can determine with precision when there is any pressure from the legs on the edge of the seat. The footboard is adjusted until it is certain that there is definite contact between the seat and the legs just behind the knees but no pressure. The child is seated as far back in the seat as the calves of his legs permit, lower legs at right angles with the thighs. The height from footboard to seat is automatically shown on a moving tape so that error is practically impossible. Children are measured in the shoes and clothing which they wear in the classroom.

A CURIOUS SCHOOLHOUSE.
Old Octagonal School at Mt. Carmel, Ill.

It is thus fairly certain that any chair higher than the measured height will positively press into the flesh and more or less affect the nerves and blood vessels which are close to the surface at the knee angle. Any movement of the feet from the vertical position under the knees will increase the pressure. Previously published measurements have usually been based on some assumed relation of seat height to stature or other anatomical measure, or have been obtained by seating the child on a table with a book under his feet and measuring the distance from book to table top. It is obvious that if the feet are hanging, there is already pressure of the table edge into the flesh caused by the entire weight of feet and legs. If the pupil is not seated well back there is also some slope of the thighs downward. Both these factors result in a measured seat height which is certain to be too great, and yet there are no measures in all the literature of the subject which justify seats as high as are generally used for both kindergarten and higher grades.

Inasmuch as a seat even a little higher than the correct measure causes pressure in that delicate area behind the knees where it should especially be avoided, and since there is no movement of the feet which can relieve it, the fundamental hygienic requirement is that **seats should not be too high.** If seats are somewhat lower than the measured height, there is no hygienic objection and no discomfort unless the seat is extremely flat. In the latter case the flesh is drawn very tight over the ischial bones and makes the seat feel hard. But it is only necessary to move the feet forward or back on

the floor to shift the weight from these seat bones along the thigh muscles and thus to relieve any discomfort. There is no hygienic reason why the lower legs should be precisely at right angles to the thighs nor the thighs to the trunk. There is unlimited evidence that a seat some inches lower than one's measured seat height may be entirely comfortable and hygienically unobjectionable. Discomfort, if any, arises from the position of the back or lack of space for extending the feet. It is safe to say that the majority of kindergarten teachers would be more comfortably seated in twelve inch chairs than are the majority of kindergarten children.

Standard school seats for the first grade (Size No. 6) are eleven inches high and measures of approximately 500 children of this grade show that 82 per cent require seats of this size or lower, 29 per cent should have ten-inch and three per cent nine-inch seats) and none are too large to use eleven-inch seats comfortably. Yet children are promoted from the twelve and fourteen-inch seats of the kindergarten to eleven-inch seats of the first grade. At least this is illogical.

The truth of these observations may be demonstrated by anyone who will take the trouble to look carefully at the children in any kindergarten where twelve-inch seats and higher are used. A large proportion of the children will be found with feet dangling without touching the floor at all. Nearly all will be found with the edge of the chair pressing harshly into the tender flesh of the legs—and many of the chairs have extremely sharp edges. Many of them never "sit down" on a chair but have to climb up to get in it and slide down to "stand up."

To make matters worse the seats are generally as much too long (front to back) as they are too high. Even if the backs are properly shaped, as most of them are not, the little tots cannot get far enough back in the chair to use such support as there is. They must either sit up with no relief for the easily tired back muscles or lean back with spine sagged and chest and abdomen compressed. It is not merely the immediate discomfort and unhygienic posture which is involved, nor the unnecessary restlessness and fatigue, but the early formation of bad habits of posture which would persist to some degree even if later seating were correct. But later seating is nearly as bad in the same respects, and the bad habits are aggravated and permanently fixed. Only those who have given much study to the subject can realize the extent to which these habits affect efficiency in school work and cumulatively tend to reduce vitality and induce various diseased conditions.

So far as the writer can discover there is no argument whatever in favor of the large seats except the inertia of tradition and a feeling on the part of some purchasers that they get more lumber for their money.

STANDARDS FOR PAPER NAPKINS AND TOILET PAPERS

The Tissue Paper Manufacturers Association of the United States, in connection with the Division of Simplified Practice of the United States Department of Commerce, has established standard sheets and sizes for various varieties of tissue papers, including especially paper napkins and toilet papers.

Over 85 per cent of the manufacturers of tissue paper for various uses have signed a stipulation with the Department of Commerce that in so far as possible they will confine their manufacture to the standard sizes and count and all papers manufactured under this stipulation will bear an official seal which guarantees to the buyer the correct size and count. All sizes of tissue paper will also contain a label bearing a statement specifying the size and count and a statement that the contents are guaranteed according to the stipulation. The labels will be colored to indicate in a general way the grade of the paper as follows:

Purple—Rag Tissue.
Blue—No. 1 Tissue.
Red—No. 2 Tissue.
Green—Manila Tissue.
Black—Colored Tissue.
Brown—Anti-Tarnish Kraft Tissue.

Toilet papers will be furnished as follows:

Sheet Toilet, 5"x7" in packages of 500 and 1,000 sheets. The basis of weight is 10 pounds for 480 sheets measuring 24"x36" in size.

Roll Toilet, containing 1,000 and 2,000 sheets, will be manufactured so that the individual sheets measure 4½"x5", or 4½"x4¾", or 4"x4". The weight of the paper will be the same as that of package toilet paper.

School authorities who purchase large quantities of paper napkins for use in school cafeterias will also be interested in the standardization which has been made of tissue paper used for napkins. In the case of bulk flat napkins which are manufactured on the basis of 1,000 per package, the following sizes have been accepted:

Plain Tissue (on the basis of 10 pounds per ream of full sized stock) .....13 "x12 "
Full Crepe Paper.....13½"x13½"
Semi-Crepe Paper .....13 "x13 "
Over-Size Napkin .....18 "x18 "

The standards adopted do not determine the exact quality of the paper. It is generally recognized that at present there is no method of fixing exact standards of quality for paper except by general designations.

PERSONAL NEWS OF SUPERINTENDENTS

—Mr. J. A. Ewart of Milton, Mass., has been elected superintendent of schools at Stamford, Conn., to succeed Wm. A. Stark.

—Mr. T. J. Knapp, for fifteen years superintendent of the Highland Park schools, Detroit, on August first, began a three-year leave of absence without pay.

—The Massachusetts Supreme Court has overruled the objections of Oliver H. Toothaker against the school board of Rockland, and has affirmed a decree of the lower court, dismissing a petition for a writ of mandamus to compel Mr. Toothaker's reinstatement as superintendent of schools.

—A. R. Shigley, formerly superintendent of schools at Allegan, Mich., has joined the staff of the Warren Holmes-Powers Company. Mr. Shigley will carry on investigation and field work for the firm in connection with its school building program.

—Mr. I. H. Head of Fort Stockton, Tex., has been elected superintendent of schools at Cuero, to succeed J. W. Ross.

—W. W. Miller, formerly superintendent of schools at North Lewisburg, O., has accepted the principalship of the high school at St. Clairsville.

—Norfolk, Va. Mr. Joseph Healy has been appointed principal of the Blair Junior High School, following Mr. A. Y. Maynard, who goes to a New Jersey principalship this fall.

SCHOOL FINANCE AND TAXATION

SCHOOL EXPENDITURES IN NEW JERSEY

The New Jersey State Department of Public Instruction has made an interesting study of the major operating expenses of city and town, and rural school systems. Separate figures have been compiled for city school districts, so-called urban districts, rural districts, counties, and the state at large. The seven major items are administration, instruction, operation of school plants, maintenance of school plants, coordinate activities, auxiliary agencies, and fixed charts. The definition of these seven items, according to the state department, is as follows:

"Administration includes all costs for the general supervision of the school system, such as expenses incurred by board members, business office salaries and expenses, legal expenses, advertising and traveling costs.

"Instruction includes all costs of supervision of instruction proper, which are costs for actual teaching or aiding in the teaching of children.

"Operation includes all costs relating to keeping the buildings and grounds open and ready for use, such as wages of janitors, cleaners, engineers, firemen, caretakers of grounds, cost of fuel, light, power and water, janitorial supplies, the expense of taking up and moving furniture, playground and gymnasium apparatus, the care of grounds, shoveling snow, removal of ashes, etc.

"Maintenance includes all costs relating to the upkeep of grounds, buildings, furniture and equipment.

"Coordinate activities include all costs pertaining to attendance, medical inspection, nurse service and other health activities.

"Auxiliary agencies include all costs of libraries, playground activities and equipment, transportation, lectures, and the net cost of school lunches.

"Fixed charges include all costs of tuition of pupils sent to other districts, pensions to former employees, rent of rooms or buildings used for instructional purposes, fire, liability and boiler insurance premiums and interest on temporary loans."

The following table illustrates how the various types of school districts differ from one another and how large the variations even in each of the types of districts amounts to:

Percentage of Total Day School Expenditures Devoted to the Major Current Items

		Admin-istr.	Instruc-tion	Opera-tion	Main-tenance	Co-Ord. Acts.	Auxil. Agcs.	Fixed Charges
		%	%	%	%	%	%	%
All Districts	Q 1	1.2	47.5	7.7	2.7	.9	1.5	2.2
	M	1.7	56.7	10.0	4.4	1.4	8.4	14.4
	Q 3	2.5	71.3	12.2	7.2	2.1	17.4	21.8
Cities Districts	Q 1	3.0	73.9	8.8	3.4	1.2	.3	.6
	M	3.6	77.0	10.0	4.6	1.8	.7	.8
	Q 3	4.9	79.6	11.9	5.5	2.4	1.2	1.2
Urban Districts	Q 1	1.2	54.5	9.4	3.3	1.0	.6	.9
	M	1.5	64.8	11.1	5.2	1.6	2.9	10.9
	Q 3	2.3	74.7	13.1	8.2	2.4	7.1	16.4
Rural Districts	Q 1	1.3	40.9	5.4	1.5	.7	11.6	12.8
	M	1.6	48.5	8.3	3.5	1.2	16.5	17.7
	Q 3	2.2	54.9	10.4	6.3	1.7	20.4	20.4
Counties	Q 1	1.7	62.2	8.9	4.3	1.4	1.8	3.5
	M	2.3	67.3	9.9	5.2	1.7	6.3	7.1
	Q 3	2.6	71.1	10.8	6.2	2.0	9.2	10.0
State Av.		2.7	72.6	10.3	5.2	2.0	3.0	4.2

In explaining the variations, the State Department says:

"The above table shows that cities devoted a larger per cent for administration than urban and rural districts. This may be explained to some extent by the fact that cities have superintendents while the other districts do not. The median is higher than the upper quartiles for the urban and rural districts. Cities also devoted a larger per cent to instruction which may be due to a very large extent to the higher salaries paid teachers in the cities. The urban districts devoted a larger per cent to operation and maintenance than cities and rural districts. In coordinate activities cities devoted a larger per cent. This is due to the fact that many cities have well organized attendance work, medical inspection and other health services. In auxiliary agencies and fixed charges rural districts devoted a larger per cent than cities and urban districts. Many of the rural districts must provide transportation and pay tuition which cause their auxiliary agencies and fixed charges to be higher in proportion to total expenditures than cities and urban districts. For the entire state, administration takes 2.7 cents; instruction, 72.6 cents; operation, 10.3 cents; maintenance, 5.2 cents; coordinate activities, 2.0 cents; auxiliary agencies, 3.0 cents, and fixed charges, 4.2 cents out of every dollar expended for the major current items of day schools."

High School Costs in Connecticut

The Connecticut state board of education, through Alfred D. Simpson, director of research and surveys, has ascertained the cost of high schools in the state. For convenience of comparison the cities are classified, Class I including those having 30,000 population and over; Class II having 10,000 to 30,000; Class III having 5,000 to 10,000; Class IV having 2,500 to 5,000; and Class V having less than either.

The medians for 1924-25 are enumerated as follows: Class I, $155; Class II, $118.75; Class III, $119.17; Class IV, $130; Class V, $145. The state median is $126.67. Mr. Simpson explains that: "High school costs have been figured for all towns whether they maintained high schools or patronized non-local or non-public schools. In the latter case the costs were almost exclusively for tuition and transportation. Similarly, the high school medians for each class were figured from the per pupil expenditures of all towns, including those who patronized non-local or non-public high schools."

—The North Carolina Department of Public Instruction has issued a report in the form of an analysis of expenditures for public schools for the year 1924-1925. The expenditures consist of amounts spent for salaries, clerical, office and other administrative costs, fuel and janitors, transportation, supplies, rent, insurance, and operating costs.

During the school year 1924-1925 a total of $33,978,063 was spent for school purposes in all the elementary and high schools of the state. Of this amount, $22,207,688, or 65.3 per cent, was spent in the rural schools for the education of 612,870, or 75.6 per cent of the total children enrolled in the public schools. The remaining $11,770,374, or 34.7 per cent, of the total expenditures was spent in the city or special char-

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ter schools for the education of 196,964, or 24.4 per cent, of the total enrollment.

In the city schools, the eight largest city systems spent $4,627,361, or 39.3 per cent of the total city expenditures for the education of 64,652, or 32.8 per cent of the total city children.

The 34 city systems shown in the table together spent a total of $8,223,336, or about 70 per cent of the total spent by the 120 special charter schools for the education of about 65 per cent of the children in the schools.

Of the total $33,978,063 spent for public education during 1924-1925, $21,030,810, or 61.9 per cent, was for current expense and $12,947,253 was for capital outlay as defined above.

SCHOOL FINANCE AND TAXATION

—Muskegon, Mich. The school board has adopted a budget of $729,709 for the next school year. In addition, a one-mill tax has been added for school purposes, making the total amount of taxation for schools, $782,609.

—The school board of Bay City, Mich., has adopted a budget of $949,221, which, less the resources of $236,620 and the bond requirements of $238,000, leaves a balance of $474,601. The total amount to be raised by taxation is $712,601.

—Omaha, Neb. The school board had a deficit in its general fund of $734,063 on June first. The deficit which is the largest faced by the school board for several years, will be cut down by incoming school taxes during the next few months.

—Cleveland, O. The school board has reduced the budget by $205,000 through reductions in teachers' salaries, and decreases in dental and medical inspections. The educational department suffered a curtailment of $106,000 and the business department a loss of $99,000.

—The Rumford and Riverside districts of East Providence, R. I., at a town meeting approved a $500,000 appropriation for a junior high school and other school buildings to be voted by the taxpayers. The school committee was enjoined from carrying out the program, the contention being that the districts cannot afford the expenditure. The statement is advanced that "a junior high school is an expensive educational novelty, costly to build and more costly to maintain."

—Owing to the fact that the voters of Sheffield, Ill., turned down the $1.25 tax increase the high school of that community will omit grades nine, ten, eleven, and twelve for the next school year. The present school tax rate is $2.75 which is less than that of the neighboring towns. It is proposed to submit the tax question to the voters before the fall opening of schools.

—At the November election the voters of Washington township, Canton, Ohio, will be asked to ratify an $85,000 bond issue for a centralized high school.

—The board of education of Cleveland, Ohio, lopped off $99,000 from the 1926-27 budget. An effort made by Frank G. Hogen, director of schools, to restore the amount failed.

—The failure of the voters to ratify a $50,000 bond issue last March at Sioux City, Ia., has prompted the board to announce that a new school building in the north part of the city is out of the question.

—The budget for 1926-27 adopted by the Lincoln, Nebr., school board totals $1,708,325. This includes something like $500,000 for interest and sinking funds.

—A drastic cut of $35,000 was made in the budget by the Galveston, Texas, school board. This includes a $20,000 reduction in the expenditure for teaching service.

—The Indianapolis, Ind., school board estimates that it will require $1,856,000 for new school buildings in 1927.

—The extension of the school building program of Portland, Oregon, from 1927 to 1932, according to Miss Alice Barrows of the United States bureau of education will require $4,682,400.

—Superintendent Samuel E. LeMarr of Abingdon, Illinois, in a public address recently demonstrated that the attendance was 59 per cent greater than five years ago and the revenue lower by $6,549. He said: "There is no use trying to hide the fact that the school district is in a serious predicament from the standpoint of finances. With a larger enrollment each year in the three schools, the funds are decreasing each year, and have been decreasing for each of the past five years. This latter condition is hard to explain."

—The Kalamazoo, Mich., school board adopted a budget for 1926-27 amounting to $1,371,150.

—The San Antonio, Texas, school board negotiated a loan with the local banks of $1,200,000 in order to carry the 1926-27 budget at an interest rate of 4.58 per cent. The budget amounts to $1,795,580.

—The budget of the Norfolk, Nebr., schools for next year amounts to $208,000.

—The school tax of Appleton, Wis., is nearly twenty per cent lower than that of the average city in Wisconsin, according to a report by B. J. Rohan, superintendent of schools. Mr. Rohan's report is based on figures recently compiled. A recent better cities contest revealed that 39 per cent of the total property tax was used for school purposes, as against 28.66 per cent in 1923. Bulletin 23 of the Wisconsin Tax Commission for March, 1926, listed Wisconsin cities and the general property of tax levies and Appleton ranked 94 in a list of 142. The average tax was $13.75, and Appleton's tax was $11.07.

—Owosso, Mich. A budget of $251,277 has been adopted to meet the expenses of the school district during the fiscal year. This is $1,755 larger than the budget of a year ago, which totaled $249,522. There will be a decrease in the tax rate, from $15.07 to $14.92, which is made possible by an increased assessed valuation of the district.

—The State Teachers' Association of Illinois has called attention in its bulletin to the need of increased school funds in order to prevent a radical retrenchment in the schools of Chicago and other districts.

In the direction of retrenchment, three alternatives are facing the Chicago schools: High schools must be abandoned; teachers' salaries must be reduced, or the school terms shortened. Other school districts in the state are in worse condition than Chicago.

The Chicago schools, it is pointed out, are in debt nearly $25,000,000 and the debt is increasing at the rate of $4,700,000 annually. By the end of the next year, it will have exceeded the

(Concluded on Page 84)

borrowing power of the district. Two remedies have been proposed, namely, an increase in school taxes, and an equalization of property assessments to their fair cash value.

—Warren, O. The school board has adopted a budget of $918,322 for the year 1926.

—The school board director of Youngstown, O., has asked the board to transfer $116,000 from the bond and interest fund to the general fund, to meet an expected shortage in the budget. It is explained the budget requirements fall short about $130,000, and that a surplus exists in the bond and interest fund.

—Waterloo, Ia. The Budget of the east side schools for the year 1926-1927 has been fixed at $380,000.

—Boston, Mass. The school board has approved the report of Business Manager A. M. Sullivan, which places the estimate of money required by the school board for the year at $21,695,804. Of the total, the school board will control the spending of $14,065,846, and the remainder, $7,630,129 will be spent by the schoolhouse commission on land, plans, and construction of new buildings, and repairs and improvements to existing buildings.

—Beatrice, Neb. The school board has adopted a budget of $218,000 for the school year 1926-1927. The instructional services total $144,775 and the expenses for general control amount to $8,950.

—Omaha, Neb. The school board plans a reduction of the 1926-1927 budget to prevent a large deficit will not result this next year. The economy plan which has been inaugurated may call for reductions in salaries of teachers.

—Adrian, Mich. The voters have approved a total budget of $230,850. Of the total, $5,500 is for capital outlay, $9,060 for general control, and $155,400 for instructional expenses.

—Lima, O. The public schools will be operated during the coming term at approximately $125,000 less than the past year. The amount for expenditures in 1927 was $729,859. The budget calls for $612,000 for general operating expenses and $15,000 for the retirement fund.

—The school board of Beaumont, Tex., contemplates the employment of a business manager for the school system. The school system has grown to large proportions and it is believed that a business manager would relieve the board of various duties and insure more expert service in handling business affairs.

—Sparta, Wis. The school board of District No. 1 now has seven members instead of three, as a result of a resolution passed at the annual meeting. The board as organized is made up of the following members: S. R. Jones, Dr. S. D. Beebe, A. L. Nicol, O. H. Doxrud, Mrs. Robert Oswald, Henry Goethe, and Mrs. A. E. Frederick.

—Waukegan, Ill. At the request of the high school board of education, a census of the entire township school district has been undertaken. The work will be conducted in such a manner that the population of the city and of the newly annexed territory will be shown.

—The residents of Lake Township, outside of the village of Hartville, O., have won a fight to prevent the erection of a large school building at the expense of the other sub-districts in the township.

The Court of Appeals has issued an order restraining the township board of education from spending more than $90,000 of a bond issue of $135,000 in the village. If the remainder is expended, it must be used in buildings or improvements in other parts of the township. The decision of the court ended a fight which had lasted more than a year.

CAPITAL OUTLAY IN NORTH CAROLINA

In the latest issue of State School Facts, issued by the North Carolina Department of Public Instruction, are given an analysis of the lesser portion of school expenditures, or the amount spent for capital outlay during the year 1924 to 1925.

The table shows that a total of $12,470,059 have been spent for capital outlay, as noted in the paper for the year 1924-1925. This amount, plus $477,174, the amount spent for repairs, makes the total $12,947,253, as given in preceding issues of the paper.

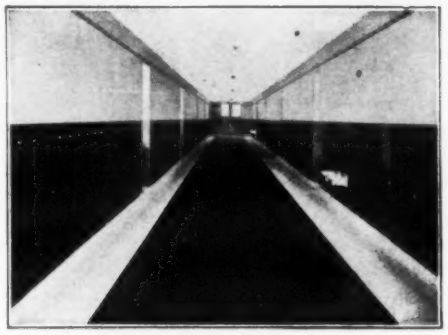
Of this, $12,470,059 were spent for this purpose during 1924-1925, $8,561,155, or 68.7 per cent, were spent in the rural schools, and $3,908,-904, or 31.3 per cent in the city schools. This is an average of $13.97 for each rural child and $19.85 for each city child during the year.

It is shown that over twice the amount spent during 1921-1922 has been invested in new schools and school equipment during each of the past three years for which figures are available. During 1922-1923 over twelve million dollars were spent toward increasing the capital outlay in both rural and city schools. During 1923-1924 over six million dollars were invested in rural school property and nearly four millions in city school property. During 1924-1925, the last year for which data have been collected, the rural schools increased capital outlay investment over eight and one-half million dollars, and the city schools nearly four millions, making a total of $12,470,059, the most which has been invested in any one year in school property.

Of the $12,470, 059 spent in the state during 1924-1925, $9,823,861 were invested in new buildings for the white children, $876,418 in new buildings for the colored children, $872,104 for furniture and apparatus for white children, $76,620 for furniture and apparatus for colored children, $56,032 for white libraries, $3,312 for colored libraries, $647,512 for new trucks, and $114,197 for other purposes not classified. The largest per cent of capital outlay is for new buildings, and the next largest is nearly a million dollars for the equipment of these buildings.

—That standardization of rural schools should be foremost in the school program of Vermont was urged by Superintendent Lyman C. Hunt of Burlington, Vt., in a public address recently. Mr. Hunt explained that supervision of schools was a big factor in their successful maintenance just as in the case of superintendency in a manufacturing plant of any kind. He urged that more young men should take up school work in college, especially those who were born and brought up in this state, because they can better understand the problems facing school authorities in Vermont. More men with the proper education to become excellent school superintendents are needed today, continued this speaker, because "many of our supervisors are going into Massachusetts and New York where they can find more opportunities."

DURABILT STEEL LOCKERS



Typical Durabilt Installation of Corridor Lockers in Chicago Schools

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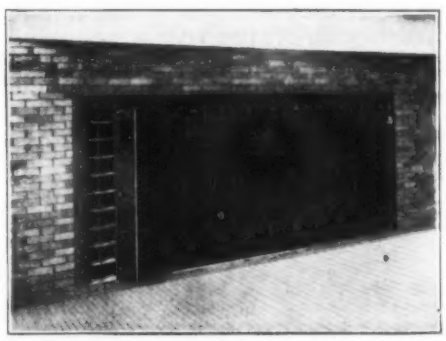


Durabilt Shoe Lockers Recessed in Gymnasium

O'Keefe

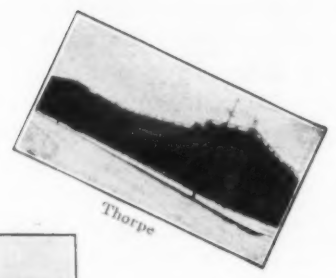
Stockton Junior High School

Cook

Peterson

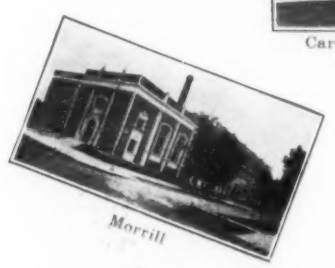
Marquette

Franklin

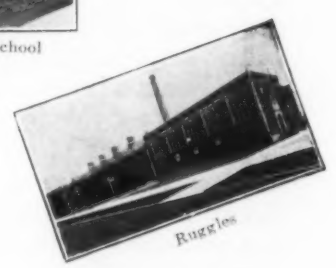


Thorpe

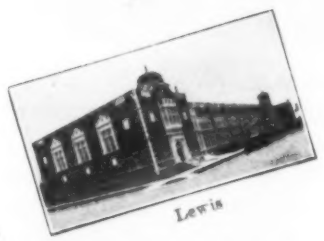
Carl Schurz High School



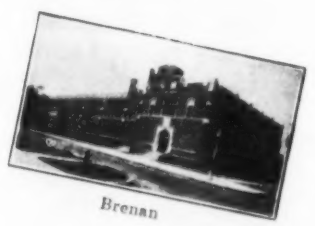
Morrill



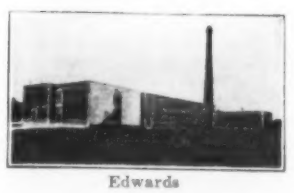
Ruggles



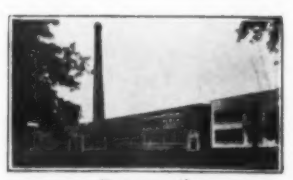
Lewis



Brenan



Edwards



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SCHOOL LAW

Schools and School Districts

A consolidated school district in the state of Michigan is liable for breach of contract with the school teacher, made by one of the original districts before consolidation.—Wilson v. School District No. 4, Ellington Township, 207 N. W. Reporter (West) 810, Mich.

One school district, made out of two entire districts in the state of Michigan, must succeed to their rights and liabilities.—Wilson v. School District No. 4, Ellington Township, 207 N. W. Reporter (West) 810, Mich.

Where two or more school districts join to establish and maintain a district high school, neither of such districts need possess qualifications required by the North Dakota statutes as to the school population and number of schools, if both districts taken together possess such qualifications (Comp. Laws of 1913, §§ 1151, 1192, 1194, 1229, 1245).—Olson v. Coalfield School District No. 16 of Divide County, 208 N. W. 154, N. Dak.

Under the North Dakota school law, the election of a special school district and two common school districts to establish a joint district of a joint high school by the two common school districts only (Comp. Laws of 1913, §§ 1151, 1192, 1194, 1229, 1245).—Olson v. Coalfield School District No. 16 of Divide County, 208 N. W. 154, N. Dak.

Government, Officers and District Meetings

Under the Texas Civil Appeal, the bondsmen and the county school superintendent are held liable to the school teacher if the county superintendent, acting in his official capacity, approved vouchers misapplying funds which could be appropriated only for the payment of a school teacher's salary.—Powell v. Mathews, 280 S. W. 903, Texas.

The county school superintendent and bondsmen are held liable to the school teacher if the superintendent depleted the fund which could be appropriated only for the payment of a teacher's salary.—Powell v. Mathews, 280 S. W. 903, Texas.

School trustees are personally liable if wrongfully breaching the teaching contract and misapplying the school district's funds out of which the school teacher's salary only could be paid.—Powell v. Mathews, 280 S. W. 903, Texas.

District Property, Contracts, and Liabilities

A contract to furnish materials to a building contractor by a corporation whose treasurer and superintendent were the clerk and treasurer of the school district, is held void and unenforceable according to the Wisconsin Statutes of 1925, 289, 16 subdivisions 1 and 2, sections 289.53, 348.28.—Bissell Lumber Co. v. Northwestern Casualty & Surety Co., 207 N. W. 697, Wis.

A corporation whose treasurer and superintendent are the clerk and the treasurer of the school district cannot recover for material sold to the school district, according to the Wisconsin Statutes of 1925, 274-12.—Bissell Lumber Co. v. Northwestern Casualty & Surety Co., 207 N. W. 697, Wis.

A clause in a contractor's surety bond, purporting to limit the liability to the obligee named, is held ineffective in view of the requirements of specifications and contract for school buildings, according to Vernon's Sayle's Ann. Civil Statutes of 1914, article 6394f.—Globe Indemnity Co. v. Barnes, 281, S. W. 215, Texas.

A rural high school district is not held liable in tort for injuries sustained by a workman employed in assisting in building a school building.—McGraw v. Rural High School District No. 1, Linn County, 243 P. 1038, Kans.

District Debt, Securities, and Taxation

Trustees of a local school district in the state of Georgia are unauthorized by law to borrow money. Where trustees of a local school district borrow money from a bank on a draft on the tax collector, accepted by the latter, no liability is attached to the district or to the trustees succeeding the original borrowers, according to Park's Ann. Code Supplement of 1922, § 1438 m; Civil Code of 1910, § 303.—Powell v. Bainbridge State Bank, 132 S. E. 60, Ga.

A bona fide purchaser of warrants in the state of Kansas, from the school district treasurer, which had been paid, may recover against the school district for the purchase price which had been deposited by the treasurer in his official account. On finding that the school district received the money paid for the void warrants sold by the treasurer and deposited in his official account, and had beneficial use thereof, the purchaser suing the district is entitled to recover, according to the Revised Statutes of Kansas 10-806, 10-807.—Briggs v. Board of Trustees of Community High School, 243 P. 1008.

Teachers

School trustees are required to abide by the decision of the state superintendent of public instruction and the state board of education of Texas, unless the decision is set aside by the proper court, according to the Texas Revised Statutes of 1911, articles 4510 and 4511.—Powell v. Mathews, 280 S. W. 903, Texas.

Pupils, and Conduct and Discipline of Schools

Where the board of a common school district offers to pay 50 cents per day per family for transporting pupils living more than two and one-quarter miles from school, but does not offer actual carriage of children, their parent and guardian is not subject to the penalties of the Compulsory School Attendance Law, according to the North Dakota Laws of 1911, C. 266, § 232, subdivision 4, amended by the Laws of 1913,. C. 267 (Comp. Laws of 1913, § 1342), amended by the Laws of 1915, C. 141, and the Laws of 1917, C. 206.—State v. McDonald, 208 N. W. 99, North Dakota.

LAW AND LEGISLATION

—According to the corrupt practices act of 1916 of Kentucky the county members of school boards must file a pre-election and post-election expense account. It seems that most of the board members elected last November neglected to comply with this provision. The statute must be construed reasonably to carry out the intention of the legislature. So construed, the corrupt practice act must be held to include members of the county board of education, since the act of creating the board contains nothing exempting its members from the corrupt practice act, which by its terms includes all county and district officers elected by the people at the regular election.

—Fifty-three high school boys who were expelled by the Oak Park, Illinois, school board because they belonged to secret organizations

have resorted to the courts to compel reinstatement. The Jacksonville, Illinois, Journal, in commenting on the subject, says: "The act of the board was a decisive blow at high school frats, which are in themselves contrary to the democratic spirit which should pervade our American free school system. They are symbolical of class lines, and although there seems no way of driving them out of colleges and universities, their presence there only serves to make it harder for students of small means to get an education, and at the same time to enjoy any social standing or advantages."

—The court of civil appeals of Dallas, Texas, has decided that the school board of that city was within its rights when it expended $30,000 for health work in the schools.

—The Illinois state teachers' association will continue its efforts to secure better state support for the schools. The research work for the association is in charge of L. R. Grin of Springfield.

The committee on state school funds consists of Supt. E. C. Fisher, Peoria, chairman; Principal Don C. Rogers of the John M. Smyth school, Chicago; Supt. H. J. Beckemeyer, Hillsboro; William E. White, statistician in office of superintendent of public instruction, Springfield, and E. H. Lukenbill, county superintendent of schools, Lincoln.

It was found also that Illinois has more school districts than any other state; that there is much overlapping; that they are irregular in shape, and that a reduction in their number would promote efficiency and economy.

A committee was appointed to investigate the district unit, consisting of Dr. H. A. Hollister, high school visitor, University of Illinois, chairman; Supt. Floyd T. Goodier, Chicago Heights; Prof. H. H. Schroeder, Illinois State Normal university; Walter F. Boyes, county superintendent of schools, Galesburg, and Principal E. O. May of the Robinson township high school.

—Citizens of Kelso, Washington, sought to compel Mrs. Mabel Lamphear, clerk of the school district to issue a recall ballot synopsis against herself. When she refused those who sought Mrs. Lamphear's removal appealed to the courts. The court decided that there was nothing in the law that compelled school clerks to issue recall mandates and denied the writ against the school clerk.

The state attorney general has given an opinion to the effect that the Ottawa, Ill., school system cannot legally employ a school nurse. He says: "In view, therefore, of the principle upheld in a number of cases, and the absence of statutory provisions authorizing such board of education to employ such school nurse, I am of the opinion that the board is without power or authority to employ a nurse."

The Common Pleas Court of Cleveland, Ohio, has been asked to enjoin the board of education from spending $84,990 for dentists and dental supplies. The claim is made in a taxpayers' suit that the board has no authority for spending money for the purpose named.

—A pupil was injured on the school grounds at Moline, Illinois. When the mother presented a doctor bill of $34.50, the school board refused to pay, holding that thereby they would establish a dangerous precedent. A high school football and basketball star recently presented a medical bill which the board also refused to pay.

—Regardless of color or race, the Shaker Heights, Ohio, school district must accept students from the Beachwood school district, is the decision of the Ohio state supreme court. The court dismissed the motion of the Shaker Heights school board to certify the record on the mandamus action brought by Beachwood to force Shaker Heights schools to accept all Beachwood pupils according to terms of the contract made between the two districts. Beachwood sought the mandamus which was granted in Common Pleas and Appellate Courts when Shaker Heights refused to seat certain negro pupils sent over by Beachwood.

RULES AND REGULATIONS

—The New Bedford, Mass., school committee adopted the following: "That it is the sentiment of the board that married women shall not be employed as teachers unless they are widows or are self-supporting and that that policy should be carried out as far as possible. The vote was taken after a long discussion during which Superintendent Hector L. Belisle engaged in a sharp repartee with some of the members relative to the employment of married women as substitutes during the past winter.

—The school committee of Woburn, Mass., decreed not to employ married women teachers and in consequence three teachers were dropped at the end of the last school year.

—The question whether or not married women may be employed in the schools was submitted to G. W. Otwell, superintendent of rural education in Michigan. He replied "There is no law which prohibits married women from teaching school. Some school boards have passed resolutions against employing married teachers. They have authority to do so if they see fit."

—A rule which provides that any woman teacher who marries during service is automatically dismissed was passed by the school board of Nelsonville, Ohio. Resignations must immediately follow the marriage announcement.

—The county board of education and the Lawrenceburg, Tenn., board of education in joint session adopted a rule whereby all contracts with teachers shall provide that failure to open and close school promptly shall nullify all agreements.

—St. Louis, Mo. The school board has amended its rule governing the care and responsibility of text and reference books, stationery, educational supplies and apparatus, as well as the arrangement of movable furniture. The rule as amended reads:

The commissioner of school buildings will have charge of all buildings owned by the board of education, and the grounds whereon such buildings are situated, and of all property movable and permanently fixed to such buildings and grounds.

He will be responsible for the care of such buildings and grounds, and of such property, both movable and affixed, and he must report to the board from time to time what assistance he requires for such purposes.

Care and responsibility for text and reference books, stationery, educational supplies and apparatus, as well as the arrangement of movable furniture in the classrooms, halls, corridors, offices and gymnasiums is vested in the superintendent of schools.

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NEWS OF THE SCHOOL BOARDS

AN OMAHA VIEW OF THE NEED FOR A SCHOOL BUSINESS MANAGER

Under the caption, "Figures Call for School Manager," the Omaha News discusses the local need for the employment of a business manager of the schools:

Its own secretary's report to the school board that the school district has a deficit of nearly three-quarters of a million dollars—the largest in years—makes the recently published comparison of school taxes in Omaha and in other cities very significant.

These statistics show that Omaha is second highest among forty cities in school taxes per capita with $19.10 for every individual in its population. The per capita tax of other cities of Omaha's size is: Oakland, Cal., $17.38; Akron, O., $16.40; Denver, $17.07; Columbus, O., $11.46. Take it another way—school taxes per every $1,000 of assessed valuation: Omaha, $12; Akron, $10.44; Portland, Ore., $8.48; St. Paul, $6.46; Columbus, $5.64.

School authorities wave aside these figures with too casual a gesture. They say that they do not mean much because we do not know whether the same items of expense were included in every case.

However, the difference in the figures is too large to be so easily explained away—especially with this staggering deficit confronting citizens. And there is too much circumstantial evidence in support of the suspicion that the figures actually do prove that our school costs are higher than they ought to be.

Omaha has witnessed many instances of waste and extravagance by school boards. It has seen difficulty of boards in keeping building programs within limits of the money available. It has heard the present board's own finance chairman charge that extensive work is authorized without any knowledge of costs. And much more of the same kind.

Apparently it is impossible for the public to bring about more businesslike methods by changing the personnel of the board. One board is about as guilty as another. So the trouble must be in the system.

And that is the reason why The Omaha Daily News is urging the employment of a school business manager. A competent man, skilled in business methods, would eliminate waste and get the most for the dollar. He would certainly permit no deficits and very probably would give Omaha a lower place among cities in school taxes per capita.

AMONG BOARDS OF EDUCATION

—E. A. Sellmansberger succeeds Albert Scates as member of the board of education of Pittsburg, Kansas.

—Henry Young, Peter A. Cavicchia and Dr. Edgar A. Ill have been reappointed for a term of three years each to the school board of Newark, New Jersey. Mr. Cavicchia is the president of the board and a prominent lawyer Mr. Young is also a lawyer who served two terms in the New Jersey state legislature.

—Dr. John J. Cloonan, member of the school committee of Stamford, Connecticut, denounced the proposed federal education bill as being un-American and vicious.

—Acting Governor Denhardt of Kentucky appointed F. G. Burrett, George Ellison, G. C. Butts, and William Buhl members of the Williamsburg, Whittey County, school board.

—Robert H. McCarthy has been appointed a member of the Troy, New York, school board. He is identified with several manufacturing concerns and of high standing in the community.

—A record of long tenure of service is credited to President L. L. Wiles, Secretary C. F. Rogers and member J. R. Phillips of the Skiatook, Oklahoma, school board. Their aggregated term of service exceeds 37 years.

—The board of education of Saginaw, Mich., appointed John E. Southgate as superintendent of buildings and grounds. Edward C. Oscar, assistant secretary-treasurer of the board, was made purchasing agent.

—At an indignation meeting called in the Chattaroy district near Spokane, Washington, it was claimed that George Sponcner was not eligible to school board membership. He is unmarried, owns no property and is not a resident, it was contended. Prosecutor Charles Leavy, sitting as a judge to decide the issue held that his ineligibility was not proven.

—A controversy was started in Dayton, Ohio, when it was discovered that members of the school board had purchased building material belonging to the school system. In each instance, the members ascertained whether the transaction was legal before entering into it. Upon assurance that there was nothing wrong as long as they paid for what they received they bought the material. The charge that they bought at a nominal price was not substantiated.

—Pittsburgh, Pa. The school board has secured a suitable site, and will appoint an architect to prepare the plans for the proposed administration building. The site selected has an area of 50,698 square feet and is well suited for the purposes intended. It is in the Schenley District near the University of Pittsburgh and the Carnegie Institute.

The new building will provide adequate and satisfactory office space and will permit of the development of a civic improvement of great significance.

—Columbus, O. Members of school boards are not permitted to pay their own children for work done for the board, according to state examiner B. B. Vance. The statement shows findings of $103 for recovery in an examination of the books of Wayne No. 9 school district, in Clermont County.

—Frankfort, Ky. A judgment of the Franklin Circuit Court awarding the board of education $35,000 from the city of Frankfort has been sustained by the Court of Appeals. The litigation between the city and the school board began in March, 1925, when twenty-year bonds for $85,000 issued by the city matured. The board charged that the bonds properly came into its hands as part of the school fund but the city since July, 1924, paid no part of the principal or interest.

—Williamstown, Ky. The Grant County board of five members was declared disqualified

(Continued on Page 92)

(Continued from Page 90)

to transact the duties of the board by the assistant attorney general at a meeting held to elect a county superintendent and select teachers. It was contended the members became disqualified because of failure to file expense accounts following the election of last November.

—School boards in the state of Washington may not make rental contracts which are equivalent to purchases when the amount involved exceeds the legal debt limitation. Asst. Attorney General E. W. Anderson in an opinion to State Supt. Josephine C. Preston has ruled than an agreement by a school board to release a school truck, paying a certain rental each year, with an option to purchase at end of the lease period for a nominal consideration would prove in reality a contract of conditional sale and is prohibited unless the total rental or contract price is within the prescribed indebtedness limitation.

The controlling thought, it is stated, would be that the rental in a bona fide lease must be a reasonable one to compensate only for the use of the article, and if so excessive as to indicate the article was being bought on an installment plan the lease would be declared a conditional sale.

—Munhall, Pa. All incoming first graders, under a resolution of the school board, are hereafter required to present legal evidence of birth date, showing that the child is 6 years of age, or will be 6 on or before February first, 1927. In addition, there must be presented a certificate of vaccination.

—Chicago, Ill. Beginning with June, 1927, elementary principals and teachers in high schools will be eligible to promotion to the upper group upon attaining a mark of 80 or more upon an examination based on a thesis to be prepared by the candidate. Candidates desiring promotion on such an examination must submit to the board of examiners one year in advance a preliminary statement of the subject of their thesis, together with such study and preparation as they choose to make.

After the preliminary statement has been approved by the board of examiners, the candidate must prepare his thesis which he will submit and upon which he will be examined, writing an examination of the same degree of difficulty as the examination now required for promotion.

—The county school board conventions scheduled by the state educational department of Wisconsin begin on June 18th and will end December 10th. They will be under the guidance of State Superintendent John Callahan.

—A recent meeting of the school committee of Pawtucket, R. I., failed in a quorum. The meeting was conducted just the same with the thought that its acts be ratified at a later date when a quorum was present. The meeting was deemed a sort of rehearsal whereupon the Pawtucket times said: "This is a bit unusual as a method of doing civic business, but perhaps rehearsal of such gatherings is not altogether unwise, although the general supposition has been that if any municipal bodies had need of rehearsals they were likely to be the branches of the city council rather than the school committee because the former are so accustomed to do their work according to definite programs arranged in advance."

—The school board of Boston, Massachusetts, by a vote of 3 to 2 has refused to sanction the principle of equal pay for equal work.

—The school board of New Bedford, Massachusetts, granted a year's leave of absence to a teacher with one-third regular pay. In commentary on the action the New Bedford Standard says: "Granting leave of absence for study at part pay might easily be abused, but it seems to us that it is often an advantageous arrangement from the city's point of view. One risk, of course, is that the employe thus favored may not return to the city's service, although the moral obligation for him or her to do so would be very strong. Assuming, however, that the employe wishes to stay with the city, and the city wishes to keep him in its service, an arrangement which will permit the city to contribute toward his further training may in the long run return more than it costs."

—At South Bend, Ind., the superintendent of schools and the principals are fighting against commercial interests exploiting the school children. The Tribune of that city says: "The pupils are in the schools to be instructed. Any encroachment on their time or their attention by outside commercial appeals is an unwarranted interference with the main business of the schools and an indirect deprivation of a part of the return which the taxpayers expect. In the guise of health and thrift instruction; in the guise of movements to uplift and elevate the pupils commercial enterprises often approach the schools. A policy of strict impartiality should prevail. The answer should be no to all who try to commercialize the schools.

—"Pay for the best—and get it" is the slogan of the Tulsa, Oklahoma, school system, presided over by Supt. P. P. Claxton, the former United States Commissioner of Education.

—"Black Hand" scares among children in the New York City schools gave teachers and principals considerable trouble during the month of June. The scares occurred on the lower east side in the Italian section and were attributed in part to pranks of boys who desired a holiday or two. The school authorities found no evidence of "Black Hand" activities.

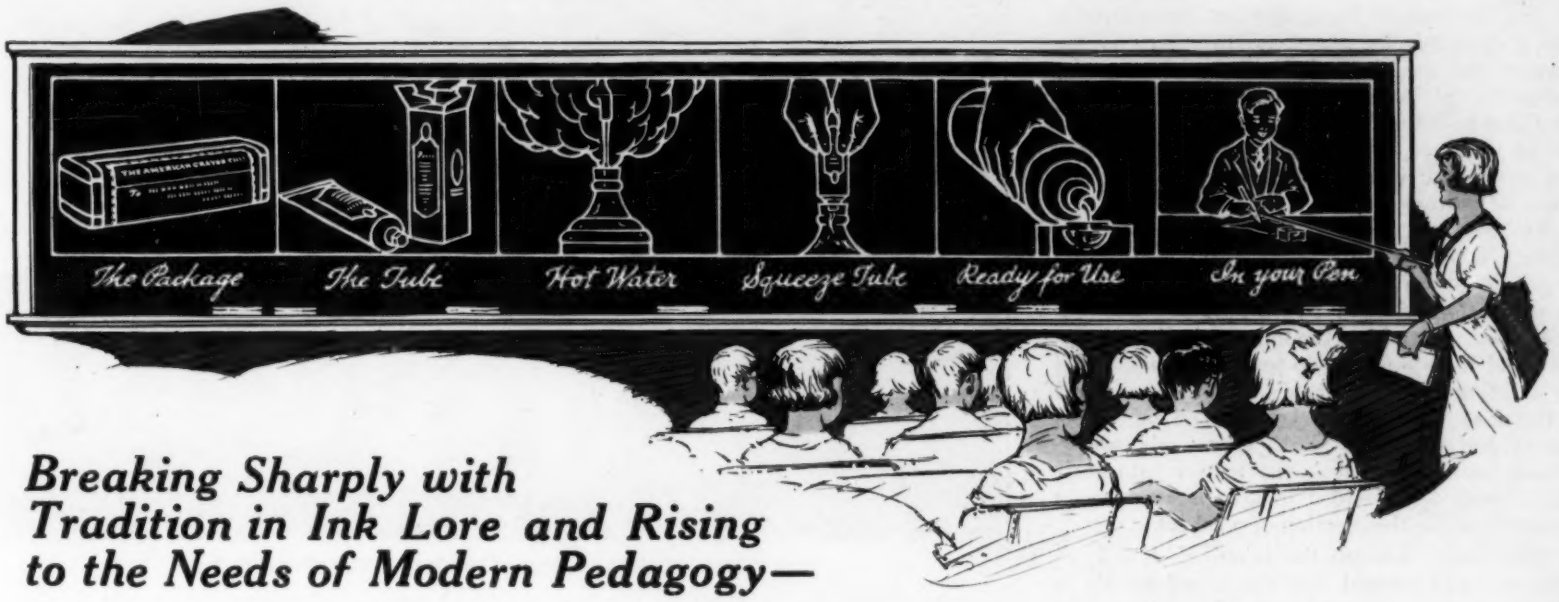
—An extension of the service of the visual instruction division of the state education department of New York is planned by Alfred W. Abrams, director. The division expects to send out this year about 100,000 more slides than ever before and is anxious to demonstrate the effectiveness of the use made of this material.

The division has steadily year after year collected and organized material directly relating to the school course of study and has endeavored to maintain a high standard of picture expression. It is concerned not alone with the question of quality, but is laying great stress upon the significance of pictures for the serious work in the classroom.

The division has recently made an arrangement with the New York City board of education by which it is taking care of all expenses to the borrower involved in the system of loans.

—The Bellevue, Ohio, Gazette devoted a supplement of one of its June issues entirely to the graduates of the local schools. A large portrait of Superintendent Charles M. Carrick is presented together with portraits of the school board members, the leading instructors and the graduates. The board consists of Dr. H. K. Shumaker, president, J. A. Wright, vice-president, C. A. Wolslagel, Calvin J. Friedley and O. A. Overmyer.

The Ink for School Use



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WHEN SCHOOL FINANCES FAIL

How a Pennsylvania Town Provided a Needed High School

The Borough of Point Marion, Pennsylvania, has a splendid new school building, housing the grades and the high school, erected by a group of public spirited citizens. The plan of financing and building this schoolhouse is interesting as an example of the American determination to provide an education for all its children in spite of obstacles.

In 1923 and 1924, Point Marion was faced with a growing shortage of adequate, sanitary housing for its school children. The town has a population of 1,607 and a normal school enrollment. A study of the finances indicated that no bond issue sufficient to permit the erection of a building would be legal; the total property valuations were far too low. When the school board had made its plight thoroughly understood, the citizens took the matter into their own hands and decided to take any necessary steps to secure the erection of a school.

The board, through the principal, Mr. J. E. Roberts, had learned that the school boards in the Boroughs of Jersey Shore, Watsontown, and Troy had organized school building "holding companies," secured charters, raised money as capital stock, and thus had financed new school buildings.

In August, 1924, a committee consisting of R. I. Houze, F. N. Gans, E. L. Titus and F. L. Bowers, was appointed by the Point Marion Community Club to visit the towns in which the "holding company" plan had been tried. The result was the formation of the Point Marion School Association and the opening of a campaign to raise $188,500 in first mortgage six per cent bonds through private subscriptions.

The Point Marion plan of financing is different from the plans in the other three towns in that the entire amount was raised by the school association. In the other plans of a similar character, the board of education had assumed part of the obligation.

The Point Marion Association raised the entire sum necessary to pay for the new building, and made a contract with the school board to rent the building at an annual rental sufficient to provide interest on the bonds and a sinking fund for retiring the entire debt at the expiration of the bonds. The building becomes the property of the school board at the end of the rental contract.

While the campaign for raising funds was under way, an experienced architect was employed to design the building on the basis of the educational needs outlined by the principal and approved by the school board. The contract for the construction work was awarded in May, 1925, and the building was completed and occupied in February, 1926.

COMMUNITY HIGH AND GRADE SCHOOL, POINT MARION, PA.

The building is three stories high, contains eighteen classrooms, and is of fireproof construction. It accommodates 600 pupils and cost a total of $188,500. The arrangement of the structure is entirely practical and has been approved by the city and state school authorities. The first floor is used for the gymnasium and auditorium, for locker rooms, shower rooms, engine and fan rooms. One section is devoted to the community library. The main auditorium has a seating capacity of 600, and is equipped with a stage and complete scenery for school theatricals and entertainments. The gymnasium is of standard size and is provided with locker and shower rooms for boys and girls.

The second floor is used for the seventh to the twelfth grades, also for the junior and senior high school departments. The junior high school on this floor has a study hall accommodating 100 pupils. A commercial department and a science room are also found on this floor. The third floor cares for the first to the sixth grades, inclusive. Each floor has hallways with exits at each end. Two drinking fountains and toilets are found on each floor.

The building was planned and erected under the supervision of Architect Harry W. Altman of Uniontown, Pa.

AUDITORIUM, COMMUNITY SCHOOL, POINT MARION, PA.

OFFICIAL PROMPTNESS IN MAKING REPORTS

"Procrastination is the thief of time" is an old proverb. Yet like many other proverbs it contains a world of meaning. "Do not put off until tomorrow what you can do today" is another old adage of similar import. And both of these may be used as an admonition to that tardy clerk of the school board who habitually waits until the very last moment to file his official reports with the officer to whom he is required to report.

A number of reports is required of the clerk or secretary of the board each year. Should these reports be submitted promptly and without requests for them or should it be necessary that the official to whom the reports are to be made write the clerk reminding him that his report in regard to a certain matter is due? Or would it not be better for all concerned for the board to see to it that all official reports are made promptly? Would it not be better to have the report in a day or two early, if it be possible under the circumstances, than to be a day or two late?

One frequently hears the county superintendent bewailing the habitual tardiness of school boards in making reports. Many times it works a real hardship on that official. For example: A teacher is employed at one of the small rural schools in his county. The clerk of the board files the contract away with his other official papers and promptly forgets it. He does not forget the fact that he has employed a teacher to teach the coming year but he does forget to let the county superintendent know anything about it. Consequently within a few days some teacher calls at the office of the county superintendent for a list of the schools that have not employed teachers and this school is on the list. The teacher therefore proceeds to make the trip out to the little school, a distance perhaps of several miles, only to learn that a teacher was employed some time before. So all this time and effort was thrown away simply through negligence upon the part of the clerk of the school board to report promptly the employment of a teacher. Other examples might be cited showing where time and effort have been wasted through failure of school boards to make reports promptly, but it is hardly necessary. Promptness is a wonderful characteristic. It is one of the essential elements of success whatever the calling or position in life may be.

The Philadelphia school authorities object seriously to the use of proprietary articles when identical materials can be purchased in the open market on the basis of carefully drawn up specifications. Recently the Philadelphia schools advertised for a chemical preparation to be used in finishing a certain type of floors. The bids received were $1.20 per unit. One of the contractors offered to furnish the same material without the trade mark at $.32 per unit and guaranteed the quality to be identical. Tests made of the proprietary material and of that bought in the open market showed no appreciable difference except that the proprietary material contained a trace of iron due perhaps to the water which it contained.

TEACHERS' SALARIES

NEW SALARY SCHEDULE FOR ATLANTIC CITY

The board of education of Atlantic City, N. J., has adopted a new salary schedule which will go into effect with the September reopening of the schools. The schedule in brief is as follows:

Class A. Teachers, including kindergarten assistants, minimum $1,200, with annual increments of $100 to a general maximum of $1,600. Further increments of $100 annually to a super maximum of $1,800.

Class B. Kindergarten and teachers in grades 1 to 6, minimum of $1,200, with annual increments of $100 to a maximum of $2,400. Further increases of $100 to a super maximum of $2,800.

Class C. Teachers of grades 7 to 8, of classes of subnormal children and of girls' classes in the girls' vocational school. Minimum $1,200, with annual increments of $100 to the general maximum of $2,600. Further annual increments of $100 to the super maximum of $3,000.

Class D. Teachers in high schools. Minimum of $1,800, annual increments $200, to a general maximum of $3,600. Further annual increments of $100 to a super maximum of $4,000.

Class E. Heads of departments in senior high schools and supervisors of special subjects. Minimum $3,000, annual increments of $200 annually to a general maximum of $4,000. Further annual increments of $100 to the super maximum of $4,400.

Class F. Teachers in the boys' vocational school. Minimum $1,800, annual increments of $200 to the general maximum of $3,600. Further annual increments of $100 to the super maximum of $4,000.

Class G includes salaries paid to principals of elementary schools, junior high schools, senior high schools, assistant principal of senior high school, director of special classes, directors of vocational schools, music, health, cafeterias, and assistant superintendent shall be fixed by the board of education upon recommendation of the city superintendent.

Class H, including special teachers of music, drawing, etc., come under the same general salary schedule as that of the class in which the portion of their work is done.

The rules of the board of education provide that the annual increments shall be given under the following conditions: "The annual increments in salary shall be granted by the board of education upon the recommendation of the Committee on Instruction, based upon the recommendation of the Superintendent and supervisory staff. Increases during the first three years of teaching in this city shall be granted for satisfactory teaching ability, power of control, cooperation in the general work of the school, loyalty, professional attitude, and effective classroom work. Beginning with the fourth year of service the annual increases necessary to obtain the general maximum, and the granting of the general maximum shall be governed by the following:

"A. The teacher must have a general rating by the principal and supervisory staff of not less than 'Good' for general effectiveness in classroom work, professional attitude, professional growth, and quality of teaching in accord with approved standards and methods.

"B. Before the general maximum shall be granted, the teacher must submit to the Superintendent a certified statement of having received additional credits to those required at the time of certification amounting to at least twelve semester hours of professional courses in methods of teaching taken at an approved college, university, or an approved summer school.

"C. Teachers receiving the general maximum in either classification for the school year beginning July 1, 1926, and those eligible for the general maximum for the school year beginning July 1, 1927, will be exempt from the professional requirements of paragraph 2, sub-section B."

The super maximum increments are given on the following conditions: "No teacher or supervisor shall be considered eligible for any of the super maximum increments until he or she shall have taught at least five years in the public schools of Atlantic City, met the standard requirements for the general maximum, taught successfully for one year under the general maximum specified for his or her classification, and is recommended by the Superintendent and supervisory staff for such an increase. The super maximum increments of super maximum salary shall be granted to superior teachers or supervisors according to the approved general classification for effective services rendered both as a classroom teacher and general helpfulness in the management of the school."

The rules also provide that the annual increment in any classification may be increased in the case of the teacher who is recommended by the superintendent, principal, and supervisory staff as an exceptionally strong and efficient teacher.

A TEACHERS' VIEW OF TEACHERS' SALARIES

The Pasadena School Bulletin for June, 1926, contains a very interesting discussion of the teachers' salary problem from the standpoint of the teacher. It makes clear the relative factors involved in the salary increases which teachers have received since 1913. To quote: "Perhaps teachers may be interested to learn that $173.50 saved up at this time for summer plans will buy you only what an even $100 would have bought in 1913. If in June, 1913, you had saved $400 as the requisite sum to take care of your summer vacation plans, today you should have the tidy balance of $694 to finance exactly the same plans.

"But in pointing out this present value of the dollar as 58.3 per cent of its 1913 value, the fact should not be overlooked that salaries during that same period have been raised a great deal. The average maximum salary for high school teachers in cities about the size of Pasadena in 1913 was around $1,500. Today we find the same teacher on a maximum of $2,800 for the coming year. Here is a remarkable increase of $1,300 in 13 years. One only needs to receive a salary of $2,600 in 1926 in order to have the same purchasing power which a salary of $1,500 gave in 1913, so a maximum high school teacher is $200 to the good.

"Second thought, however, impels one to investigate as to what was happening to that teacher's purchasing power who was at $1,500 maximum in 1913, is now at $2,800 maximum; who was teaching all of the intervening years and also spending during that time.

"Her $1,500 was worth $1,380 in 1916, $1,050 in 1917, $960 in 1918, $870 in 1919, $1,248 in

1920, at which time we shall figure in the fact that salaries were raised generally and shall put her at the extreme maximum of $2,600, which was rarely realized in any city in this vicinity. From here on we shall figure her receiving $2,600, the purchasing value of which was $1,586 in 1921, and so we find her the recipient of an $86 raise in six years. In 1922 the value was $1,638, in 1923 it was $1,612, in 1924 it was $1,560, and finally $1,566 in 1925. The last year was figured on a basis of receiving $2,700.

"The total salary received from 1916 to 1925, inclusive, totals a purchasing power of $15,082, as against ten years multiplied by $1,500, which would have been hers if her salary had kept pace with the galloping dollar. Not so bad, is it, to be $82 ahead, but we have overlooked the matter of interest on the amount she was in arrears for the years 1916 to 1920, inclusive, which figured for seven years at six per cent, makes a total of $840. From now on the $2,800 salary whose purchasing power in 1913 is $1,624, will apply $124 per year on the $840 dollar deficit which still draws six per cent interest on the unpaid balance. At that rate eight or nine years will make her even with the world, or rather will make society even with her.

"It is interesting to reflect that if she had taught eight years to reach the maximum in 1913 she will not have earned what was really due her until 1935 at which time she has served thirty years as teacher and can retire. At least she will have succeeded in discharging her debt to herself for having served society as a teacher.

"What is the moral, if any?

"In the first place, it would be nice at this time to have that $840 to add to the sum saved up for the summer plans.

"Secondly, perhaps, it is well not to spend much time thinking about remuneration when teaching, else a teacher may not always be in that desirable 'Oh-thank-you-for-your-generosity' spirit so essential to care-free, upward looking, inspiring teaching.

"Thirdly, in view of increasing standards for teaching, the ever-present pressure to take extension courses, summer work, to get higher degrees, to obtain this and that credential, to take an active part in civic affairs, to contribute to this, support that, subscribe to the other—through all of which runs the sane public recognition that teachers as a whole should have better salaries—it is worth bearing in mind that the teacher who received $1,500 in 1913 is now receiving the equivalent of $1,624, when actually being paid a salary of $2,800. There has not been an increase in salaries of $1,300 from 1913 to 1926, but instead there has been a raise of $124 to answer the admittedly feeble public demand that teachers be better paid. Raised standards, increased demands on the teacher, and her increased experience and ability have received the signal recognition of a raise of about sixty-seven cents a day."

KALAMAZOO SALARY RULES

—Kalamazoo, Mich. The board of education has revised its rules relating to the employment of teachers and the payment of salaries. The new rules require:

First—In order to be eligible to appointment, high school teachers, except those employed for manual arts and commercial departments, shall have a complete college education and at least one year of successful experience in teaching. In the manual arts, commercial and other special departments, graduation from an approved school and possession of legal certificates shall be required.

In order to be eligible to appointment, elementary school teachers shall have a normal school or college education, or its equivalent, and at least one year of successful experience in schools of acceptable rank, provided, that especially meritorious teachers without normal school or college training, but with three years or more of successful experience, may be appointed. At the discretion of the board of education and superintendent of schools, the year of experience previous to appointment may not be required, especially in the case of kindergarten and manual training assistant and assistants in physical education.

Second—Teachers shall be paid one-twelfth of the annual salary upon the first of each month, except July, August, and September. At the close of the school year in June teachers shall receive the tenth and eleventh installments of their salary, and on or about the fifteenth of July they shall be paid the twelfth installment. Provided, that any teacher whose length of service shall not cover the full time of the contract shall, if the remaining terms of the contract have been fulfilled, receive as many 400ths of the eleventh and twelfth installments as there have been days actually taught by her, or him, during the year, unless resignation of said teacher is caused by personal illness, in which case she shall, on recommendation of the superintendent and educational committee, receive as many 200ths of the eleventh and twelfth installments as there have been days actually taught by her, or him, under the contract.

Third—Any teacher secured for less than a year shall under the same conditions, receive as many 200ths of the eleventh and twelfth installments as there have been days actually taught by her, or him, under the contract.

Fourth—Teachers excused from duty on account of personal illness shall be allowed full pay for each day's absence during such time as they may be absent on such account for a total not to exceed ten school days in the year and three days' full pay shall be allowed for absence caused by death in the immediate family.

Fifth—All teachers shall be given a written notice of their election, together with a copy of these rules. They shall, not later than a date specified in the written notice, sign and return to the secretary of the board of education the formal contract with them. Failure to sign and return the contract by the date specified in the notice shall be considered a declination and the position shall be declared vacant.

TEACHERS' SALARIES

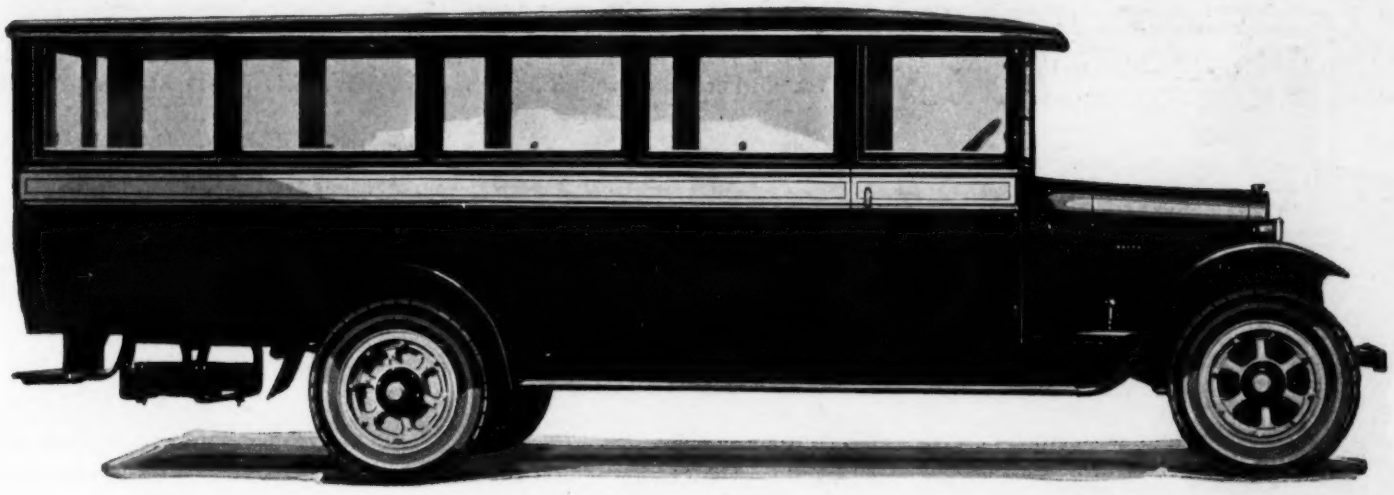
—A request for an increase in salaries presented by the teachers of Biddeford, Me., to the school board of that city was denied. The board held that in view of the money needed for repairs it would be impossible to increase salaries.

—Superintendent Harvey S. Gruver of Lynn, Mass., has been instructed by the school committee to make a thorough study of the teacher salary question and report.

—A service bonus of $60 per year will be granted to teachers of Boise, Idaho, who have served ten years.

—Atlantic City, N. J. The school board has adopted a salary schedule and rules to govern the payment of salary increases. The schedule is divided into six groups, namely, kindergarten assistants, kindergarten grade teachers, subnormal and girls' vocational teachers, high school teachers, heads of departments and supervisors, and boys' vocational teachers.

(Concluded on Page 100)



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(Concluded from Page 98)

Kindergarten assistants will begin at a minimum of $1,200, and will receive increases of $100 up to a general maximum of $1,600, and further increases of $100 up to a super-maximum of $1,800.

Teachers in grades one to six will begin at a minimum of $1,200, will be given increases of $100 up to a general maximum of $2,400, followed by further increases of $100 up to a super-maximum of $2,800.

Teachers in grades seven to eight, subnormal and girls' vocational school will begin at a minimum of $1,200, and will be given increases of $100 up to a maximum of $2,600, and further increases of $100 up to a super-maximum of $3,000.

High school teachers will begin at a minimum of $1,800, and will receive increases of $200 up to a general maximum of $3,600, and further increases of $100 up to a super-maximum of $4,000.

Heads of departments in the high school and supervisors will begin at $3,000, and will be given increases of $200 up to a general maximum of $4,000, and further increases of $100 up to a super-maximum of $4,400.

Teachers' in the boys' vocational school will be given $1,800, and will receive increases of $200 up to a general maximum of $3,600, and further increases of $100 up to a super-maximum of $4,000.

The annual increments are given by the school board, upon the recommendation of the committee on instruction, based upon the recommendation of the superintendent and the supervisory staff. Increases during the first three years of teaching will be granted for satisfactory teaching ability, power of control, cooperation, loyalty, professional attitude, and effective classroom work.

No teacher or supervisor will be considered eligible for the super-maximum increments until he or she has taught at least five years in the public schools, has met the requirements for the general maximum, has taught successfully for one year under the general maximum specified for the particular classification, and has been recommended by the superintendent and supervisory staff for such increase. The super-maximum increments are given to superior teachers or supervisors according to approved general classification for effective service rendered both as a teacher and general helpfulness in the management of the school.

Credits for summer school work, or for post-graduate work received previous to September, 1926, will be credited toward the general maximum requirements.

—Boston, Mass. The school committee has granted salary increases in connection with the creation of new positions and the fixing of salaries. An advisor in high schools has been created with a minimum salary of $2,208 and a maximum of $3,648. The office of director of speech improvement has been created, with a minimum salary of $2,640, and a maximum of $4,080.

In the department of school hygiene, the minimum salary of sanitary inspector has been fixed at $1,728, with a maximum of $2,112. A sliding scale for supervising school physicians has been fixed from $1,800, with annual increments of $120 to $2,040. School physicians in the certificating office have been given increases fixing the minimum at $1,592 and the maximum at $1,800.

The minimum salary of the supervisor of nurses has been fixed at $2,040, with annual increments of $120, until the maximum of $3,000 has been reached. The supervising nurses have been raised to $1,824 as a minimum, and $2,208 as a maximum.

The salary of assistant director in the division of investigation and measurement, has been placed at a minimum of $2,400, with annual increments of $120 up to a maximum of $3,480.

—Mt. Vernon, N. Y. The board of education is considering a plan to pay teachers with dependents larger salaries than are paid to other teachers. At a meeting of the board, a by-law amendment was presented, which provides that "any teacher receiving a salary of less than $4,000 a year, and who has in his or her family persons who are wholly dependent upon such teacher for support, shall receive, in addition to the regular salary, $500 for the first dependent, and $150 for each other dependent person, provided that in no instance the amount of money received be more than $950. Proof in the form of an affidavit of the dependency of such person must be furnished on or before September first of each school year.

The following amendments to the by-laws governing salaries have been presented:

(a) For Elementary and Junior High School Principals:

Class A Principals in charge of schools of twenty or more classes shall receive salaries as follows:

Minimum salary, $3,000; maximum salary, $5,000.

Class B Principals in charge of schools of eight or ten rooms inclusive shall receive salaries as follows:

Minimum salary, $2,000; maximum salary, $4,000.

The amount of the annual increments in each of the above classes shall be not less than $200.

Elementary and Junior High School Principals in charge of two buildings shall receive an additional compensation each year of $500 for the supervision of the additional building.

(b) For High School Principals:

The salary of the Principals of the several high school departments shall be as follows:

Academic High School—Minimum, $4,000; maximum, $6,000.

Vice-Principal—Minimum $3,000; maximum, $5,000.

Industrial Arts—Minimum, $3,500; maximum, $5,500.

Commercial — Minimum, $3,500; maximum, $5,500.

The amount of the annual increments in each of the above positions shall be not less than $200.

(c) Supervisors:

(1) Qualifications: Supervisors shall have the same general educational qualifications required of the teachers under their supervision and in addition special training and successful experience in teaching and supervising their respective subjects.

(2) Appointment and reappointments: Supervisors are subject to the same rules and regulations that apply to Principals.

(3) Salary schedule; the salary of Supervisors of special subjects shall be as follows: Minimum, $3,000; maximum, $5,000.

The annual increment for each of the above positions shall be not less than $200. Referred to the Committee on Ways and Means.

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The Employment of an Architect a Serious Matter

Frequent attention has been called in these columns to the seriousness of employing competent architects to design school buildings, and to supervise their construction. News which reaches the Journal periodically leads to the conclusion that many school boards in smaller communities are still unconvinced of the importance of hiring an experienced architect who understands the problem of the school and who is ready to furnish plans and to give supervisory service that will result in an educationally serviceable and economical building.

A recent discussion of this problem in the field of church design and construction deserves careful reading on the part of school board members, because it touches upon many points which are parallel in the school field and which apply with special force to school boards and school building problems.

The following paragraphs are quoted from a circular, issued by the Bureau of Architecture of the Methodist Episcopal Church, and might almost have been written for school boards, if the word church were replaced with the word school, and reference to preachers and ministerial officials were changed to superintendents of schools and school board officials:

"Certain calamitous results on account of inefficient architectural service recently observed have stimulated this communication.

"Poor architectural service results in a waste of space and material, and ugly, inadequate and unsafe buildings.

"The architectural profession is one of the learned professions in which the members, if competent, must have the technical skill and knowledge required by their work, business and executive ability, and to all this the addition of artistic feeling with a background of general scholarship. The trained architect has taken courses in liberal arts, literature, and history, as well as technical training in design, architecture, and engineering.

"The 'plan drawer' in states that have lax laws regarding registration of architects may be merely a draftsman or builder who can represent in a bare way the elements of construction, leaving all important details to be filled in as may suit the whim of anyone into whose hands the 'plans' may fall.

"In many states the law governing the practice of architecture is very explicit, fixing definite responsibilities upon the architect. In states requiring the registration of architects after having passed a state examination, it is illegal to use the term 'architect' without such legal registration.

"The American Institute of Architects, with headquarters in Washington, D. C., is the national professional organization. To become a member one must be a legally qualified architect and must meet certain ethical and professional standards.

"In dealing with architects it is highly important to know your requirements, as related to architectural service. In this respect a church Bureau of Architecture can be of service. By knowing the requirements of the church, its history and aims, as well as being competent in the practice of architecture, the Bureau is enabled to bring about the combination of effort necessary for a satisfactory solution of the problem.

"Cases have come to our attention where architects promised to plan a building of certain capacity. A Sunday-school room would be marked on the architect's sketches as having capacity for a certain number. Every Sunday-school worker knows that a department room requires, for effective work, a certain number of square feet for each attendant. The architect indicated the capacity that would be possible only by placing the pupils close together in chairs, making the use of tables or division into class-groups impossible. When it is stated that a building will care for a certain number of people, one must raise the question as to how many square feet or how many lineal feet of pew space is provided for each sitting.

"We recently saw the wall of a $300,000 church building of another denomination lying in ruins because it had not been designed with sufficient strength to carry the weight of the roof. The tower of another church had to be torn down and rebuilt in order to bear the weight of the bell. These architects were deficient in engineering and did not employ competent engineers. They sold their services to these churches, however.

"The architect is a referee. During the planning and construction of the building, questions constantly arise as to material to be used, the composition of mixtures, etc. The architect is the one to whom all such questions are referred. He is responsible for seeing that the builder meets every requirement implied in the blue prints and specifications. In certain cases the construction company prepared the plans or employed someone to do this. Every question was passed upon by a man known as the architect, but actually in the employ of the construction company. This, of course, to the advantage of the construction company. The owner is left without an advocate, and sometimes must go to the expense of employing additional architectural service for his own protection. Needless to say this is contrary to the ethical code of the American Institute of Architects.

"The division of architectural service and compensation is as follows, on the basis of six per cent of the cost of the building:

Architectural Service	Division of Charge
1. Preliminary drawings and sketches	1⅛ per cent of the cost
2. Construction or working drawings	1⅛ per cent
3. Preparation of specifications, contract documents, and letting contracts	1⅛ per cent
4. Detail drawings of certain parts of the building (windows, doorways, trusses)	1⅛ per cent

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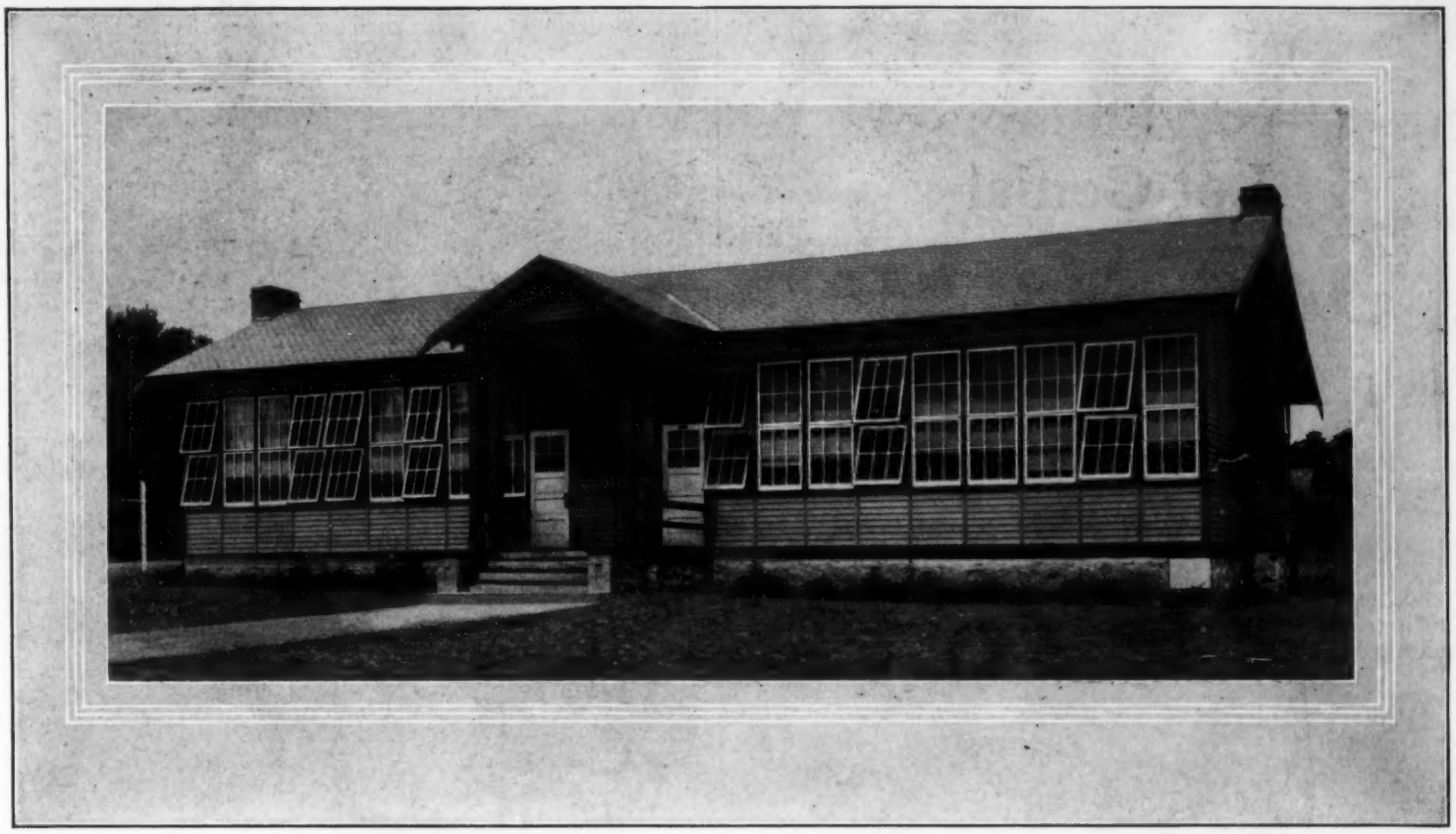

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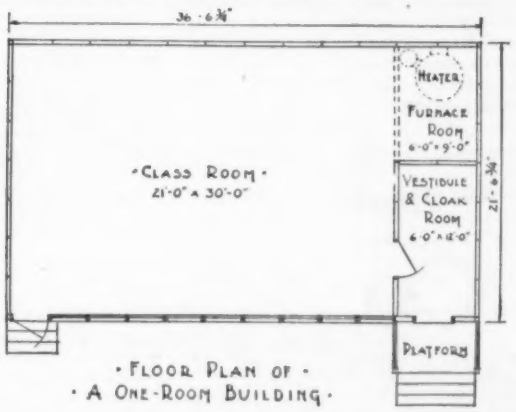

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CIRCLE A PRODUCTS CORPORATION

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CIRCLE (A) SCHOOLS

(Concluded from Page 102)

5. Supervision of construction, and auditing of accounts	1½ per cent
Total	6 to 6½ per cent of the cost of the building

"A real estate agent charges five per cent on the selling price for service involved in selling a property. It would seem that the very responsible service of a competent architect must cost at least six per cent of the cost of the building. To pay less often involves risk.

"An architect should be employed on the basis of his ability to solve a building problem and not on his ability to sell his services, or to make a pleasing impression upon the building committee. Do not be surprised if the most capable architects do not solicit work.

"To recommend an architect involves considerable responsibility. Unfortunately for the cause of church building several architects who have been successful as clever salesmen have come short of giving the church the service required and desirable. Too often churches are won by the argument of cheapness.

"The following circumstances indicate an unhappy situation connected with church building. A certain architect ranking very high in his profession was asked why he was not manifesting more interest in church building. In reply, he stated this case:

"'A firm of architects in an adjoining state came into his state and received a commission to prepare plans for a Methodist Church. They had numerous letters from lawyers, preachers, and ministerial officials proclaiming them to be the greatest church architects in the country. They were given the job. Subsequently, it developed that they were not registerd in the state, and were requested to stop work on their building until the matter was settled. When they failed to do this, one of the firm was arrested. He was later brought before the board of examiners for a verbal examination, in which many interesting disclosures were made. His drawings were distinctly faulty in structural design. When these errors were pointed out, the architect in question disclaimed responsibility for them, saying that a certain bridge company did his engineering work, and he bothered himself very little about it. His drawings had no heating layout, nor was much information given about the sanitary provisions of the building. He admitted that this was given to one contractor who made his own layout, and it was therefore unnecessary for him to spend any time on such features!'

"He said that there seemed little use for him to interest churches in a better quality of service when such firms will approach a building committee with letters from prominent church leaders, all stating that they are the largest and best church architects it has been their opportunity to know, etc. This memorandum is offered for your information."

BUILDING NEWS

—The school board of La Salle, Ill., has renewed $32,000 worth of insurance on the school buildings. The board carries 80 per cent coinsurance, covering all buildings in the same blanket policies. Standard policies are arranged and apportioned to the local agents as the board determines. Of the three agents selected this year, one received $3,000 worth of property value, one $24,000, and a third $5,000.

—Union plasterers working on new schools in Brooklyn and Queens, New York, went on a strike because cement instead of plaster ceilings had been specified. Architect William H. Gompert said that he had specified cement for safety's sake. Plaster ceilings, he explained, no matter how well placed, will occasionally fall, thus endangering the lives of children seated at their desks. Concrete ceilings, on the other hand, he said, will not fall in chunks as does plaster, even if defectively applied. The cement, he said, at most crumbles away in small bits. Last September plaster ceilings in three or four newly opened school buildings fell because of defective material or workmanship. As a result two inspectors of the bureau of school buildings were placed on trial. The blame for the incident has not yet been fixed by the board of education, but it is understood the specifications calling for concrete ceilings were drawn as a direct outcome of this incident.

—The school board of Lansing, Michigan, has employed Pond, Pond, Martin & Lloyd of Chicago as architects for the new senior high school.

—The school committee of Providence, R. I., has requested the local city council to appropriate $1,200,000 for a new junior high school.

—New York, N. Y. The board of education has announced that during 1927 it will organize and open 21 new schools, some of which will be headed by teachers in charge or assistants to principals. Two of these schools will be opened in the spring term of 1927 and the remainder will be in use in September, 1927.

—Holland, Mich. The board of education has completed the contract for an elementary school, to cost about $150,000.

—Marine City, Mich. A fine gymnasium is in process of erection. It will be completed for use in September.

—Parksley, Va. The need for a new high school building here has been met by the completion of a $75,000 house.

—Richmond, Va. A total of 1,081 trucks hauled to consolidated high and elementary schools 29,409 pupils during the past session. This is a gain of 283 trucks and over 4,000 pupils over the previous year. For every truck operated by county school boards the state board of education pays twenty-five cents per pupil mile.

A TEACHING PERSONALITY

Just as the great cathedrals in Europe, unsurpassed in beauty, were erected by architects and workmen who believed in what churches stood for, who worked under the influence of the religious spirit, and who were not mercenary, so we, too, can create an educational tabernacle equally beautiful, if we, too, have leaders and workers who believe deeply enough in what education stands for, who are imbued with the true educational spirit, and who will not be mercenary.

Teaching is an art and not the least difficult or the least noble. If everybody trying to find a form for an idea is an artist, then the teacher is an artist. As such he must find the beauty of his art, for there is beauty in the teaching art as there is in painting, sculpture and music.—Dr. Gustave Straubenmüller, Association Superintendent, New York City.

—Woodstock, Va. The citizens of Shenandoah County voted in a special election on July 6, for bonds for the erection of five new school buildings covering an expenditure of $150,000. Plans and specifications for the new houses have been approved by the state board of education.

—Farmville, Va. The people of this city voted a bond issue of $65,000 to be used in the improvement of school equipment. An auditorium, a gymnasium and a new colored school building will be erected.

—Royal Oak, Mich. A new senior high school, to cost $871,000, and a grade school, to cost $150,000, will be erected during the coming year. The high school will occupy a site of ten acres and a complete athletic field has been provided. D. Madison, of Royal Oak, is architect for both buildings.

—A new high school is in process of erection at Swansea, Mass. The school is the gift of Mrs. Frank S. Stevens and will be formally presented to the town at completion.

—The town of Somerset, Mass., has erected an eight-room school to cost $100,000. The building will take the place of three two-room schools and will be occupied in September.

—Charleston, Mo. The school board has completed the erection of a high school costing $100,000. In addition to twenty classrooms, the building contains an auditorium, a library, and a gymnasium. It is being equipped ready for use in September. Mr. H. H. Hohenschild, St. Louis, Mo., is the architect who designed the structure.

—Albion, Mich. The citizens have voted $175,000 for the completion of the present high school building and the erection of a grade school annex. The Warren Holmes-Powers Company has been employed as architects.

—Lexington, Mo. Construction work on the junior-senior high school was begun on July 7th. The building is being erected under the direction of J. H. Felt & Company, Kansas City, Mo., and will cost about $200,000. A remodeling program for the grade schools will be carried out at an estimated cost of $35,000.

—Cleveland, O. The school board carried out a repair program amounting to more than $500,000. In addition to the usual repairing and renovating, the program included the installation of heating systems, the establishment of the girls' training school at the Shibley school, and the remodeling of another school for vocational purposes.

Three Millions for School Improvement in Kansas City, Missouri

Expenditures for new school buildings, improvements and locations totaling $3,055,000 were made in the Kansas City school district during the fiscal year ending June 30, 1926.

The total includes three new elementary school buildings, additions to four other elementary school buildings, two junior high school buildings and one senior high school.

For this fiscal year the expenditures have been approximately as follows:

For—

(a) Elementary school buildings (sites, equipment, new buildings)	$ 480,000
(b) Junior High Schools (sites, equipment, new buildings)	1,075,000
(c) Senior High Schools (sites, equipment, new buildings)	1,400,000
(d) Junior College school site	100,000
Total	$3,055,000

—Frank E. Fowler and H. Gilbert Karges have formed a partnership under the firm name of Fowler & Karges, architects and engineers, with offices at 707 Furniture Building, Evansville, Indiana, as successors to the office of H. Gilbert Karges, and the office of Shopbell, Fowler & Thole, Inc.

MANUAL ARTS DEPARTMENT SHOPS, KERN COUNTY UNION HIGH SCHOOL.

SCHOOL ADMINISTRATION NOTES

ELECTED SCHOOL BOARDS FAVORED

That boards of education should be free of municipal control in their financial affairs, and that such financial power should be held only by school boards elected by the people are the main conclusions of the New York State Commission on School Finance and Administration, recently made public. The commission points out, as reported in the New York "Sun," that the legislature of New York state apparently sought to give the New York City board of education control of its finances in 1917, when it enacted the present education law, with its provision for a minimum school appropriation of 4.9 mills of the city's assessed valuation. At that time a rate of 4.9 mills yielded sufficient to meet practically all the needs of the board of education. Since 1920, however, the 4.9 mills yield has furnished only about half the money required. The result has been that the board of estimate has been holding the purse strings of the school system.

The commission cites a number of investigations made to determine the relative efficiency of financially independent and dependent school boards. One conducted by Dr. C. W. Frasier, of Denver, is referred to at length and the findings summarized as follows:

a. Independent cities are much more successful in keeping their sixteen and seventeen year old children in school than are dependent cities.

b. The two types of cities appear to be equally successful in keeping the number of children in class below forty.

c. Independent cities provide much more adequate playground space than do dependent cities.

d. Dependent cities secure a larger proportion of women elementary school teachers who have had six or more years of training above the eighth grade than do independent cities.

e. Independent cities have a greater proportion of their children attending school all day and in adequate buildings publicly owned than have dependent cities.

f. Independent cities were more successful between 1913 and 1920 in raising teachers' salaries to meet the increased cost of living.

The commission calls attention to an inquiry made by the United States Bureau of Education, which ascertained that thirty-eight of the fifty-seven cities with 100,000 or more population considered in the study had elected boards. In New York state twenty-nine cities have elected boards and two others have boards which are partly elected and partly appointed.

Operation and Maintenance of School Busses in Montgomery County, Alabama

Mr. T. L. Head, assistant superintendent of schools of Montgomery County, Alabama, has issued a tabulated report on the work accomplished by the school busses during the past year. The report shows that the 35 busses traveled a distance of 260,058 miles, using 24,664 gallons of gas and making a gas mileage of 10.54. Thirty-five busses used a total of 1,513 gallons of oil, made an oil mileage of 172, and made a total of 17,380 trips.

At Catoma, the shortest distance any child had to travel to get to school, was one-half mile, and the longest distance was nineteen miles; the longest distance any child had to walk to get to bus was two miles. At Chisholm, the shortest distance any child had to travel to school, was .8 of a mile and the longest distance was 6.8 miles; the longest distance any child had to walk to bus was .5 of a mile. In Cloverdale, the shortest distance traveled, was one mile and the longest distance was 22.5 miles; the longest distance any child had to walk to get to a bus was one-half a mile. On the Pike Road, the shortest distance traveled by a child was one mile, and the longest distance was twenty miles; the longest distance traveled to a bus was 2.5 miles. On the Pike Level, the shortest distance any child traveled to school was one mile, and the longest distance was 14.8 miles; the longest distance a child had to travel to a bus was .5 of a mile. At Pintlala, the shortest distance traveled was 1.5 miles, and the longest distance 13.6 miles; the longest distance traveled to get to a bus was two miles. At Ramer, the shortest distance traveled was one-half mile and the longest distance, 23 miles; the longest distance a child had to walk to a bus was two miles.

Comparing the record by busses, the Catoma busses made a total of 26,534 miles, and used 2,564 gallons of gas and 147 gallons of oil. There were three busses on the route and each bus traveled an average of 8,845 miles.

The Cloverdale busses made a total of 63,997 miles, and used 6,131 gallons of gas and 387 gallons of oil. There were eight busses on the route and each bus traveled an average of 7,999 miles.

The Pike busses made a total of 40,185 miles, and used 4,335 gallons of gas and 310 gallons of oil. There were six busses on this route and each traveled an average of 6,697 miles.

The Pine Level busses made a total of 24,222 miles, and used 1,892 gallons of gas and 109 gallons of oil. There were three busses on the route and each traveled an average of 8,074 miles.

The Pintlala busses made a total of 26,435 miles, and used 2,419 gallons of gas and 207 gallons of oil. There were four busses on the route and each traveled an average of 6,609.

The Ramer busses made a total of 78,685 miles, and used 7,323 gallons of gas and 351 gallons of oil. There were eleven busses on this route and each traveled an average of 7,153 miles.

BETTER JANITORS AND JANITORIAL SERVICE

—Business manager John B. Wynkoop, of the board of education at Bridgeport, Conn., has made known his intention to recommend for

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promotion janitorial workers who have given meritorious and diligent service. Speaking before the janitorial staff on this point, Mr. Wynkoop said:

"In a well conducted school system, janitorial engineering vacancies in higher positions, paying higher salaries should be made by appointment from within the ranks. When a man is endowed with the proper qualifications governing cleanliness, when, if he has ability to plan and organize his work and has ability to win the cooperation of his subordinates and weld them into an effective, loyal unit, and in addition has the proper inclination to cooperate with the principal, teacher and child he will always be recommended by me to a higher position.

"Janitorial service sets up the housekeeping standards of the school. The public school janitor is what the housekeeper is to the home. Your ability to set up proper standards of cleanliness is a valuable contribution to modern education.

"Along with the many changes which have taken place during the past few years in national, state and local laws and ordinances affecting our public schools, there has come a realization that the men to whom our school buildings are entrusted must not only be able to shovel coal into the boiler, scrub, sweep, clean, dust and perform usual janitorial-engineer's duties, but they must have a thorough knowledge and understanding of heating, ventilation, sanitation and housekeeping.

"Heating no longer means shoveling fuel to about 70 degrees—ventilation no longer means the opening and closing of windows—housekeeping no longer means the wielding of a corn broom or duster.

"The chief concern, however, is the solution of the problems arising in your individual building that will help make modern education the essential success by proper housing of that portion of the population during their school years and by proper heating, lighting, ventilating, sanitation and housekeeping methods.

"The trouble with our janitorial and engineering service throughout the country today in our public schools is that we have been too much concerned with personalities and have been distracted from the main issue with questions pertaining to service.

"Cleanliness, like charity, begins at home. The man who is clean himself, will reflect himself in his work and his building on the principal, teachers and scholars.

"I believe that the day is not far away when the burden of the man in charge of the physical plant will be greatly lightened by the burning of oil as a means of fuel, thus cutting down the load considerably.

ADMINISTRATION NOTES

—Classification of children according to their intellectual potentials during the pre-school age period has recently been urged by Dr. Ira S. Wile, former member of the board of education of New York City. Dr. Wile stressed the importance of the factors entering into the health and behavior of children prior to school entrance, and asserted that there are approximately 10,000,000 children between the ages of 2 and 6, much of whose welfare and success depends upon their development during the pre-school age.

Commenting on the problems suggested on the strictly physical side, Dr. Wile pointed to the fact that one-third of all deaths occur in children under the age of 6 years. He asserted that there are virtually ten times more deaths during the year prior to entering school than during ten years of school life. Prior to school life, there arise injuries and accidents, one-third of all the cripples, a large proportion of blindness, and three-fourths of all defects and speech deficiencies. It is the age of greatest susceptibility to diphtheria, and one in which the symptoms of malnutrition are exceedingly common. Defects of teeth, faulty posture, infections of the face and throat are predisposing causes to many of the difficulties that arise during school life. The pre-school age, Dr. Wile asserts, calls for greater attention to the physical examination of children, correcting remedial defects and establishing immunity against such diseases as diphtheria and smallpox.

Regarding the need for pre-school age classification, he said "a high degree of retardation at the end of the first year of school life indicates the seriousness of not knowing the intellectual capacities of children prior to their entrance at school. The orderly direction of the intellectual faculties, the development of habits of attention and concentration, training and adjustment to objective phenomena, and the development of interest and enthusiasm represent some of the phases of ordering intelligence during the pre-school age to enable children to function more adequately during the period of school life."

—Wellesley Hills, Mass. The rapid promotion plan has been successfully operated for a second year.

Under the plan, all children in the fourth grade are each year given mental tests, and upon the results of these tests, the pupils are promoted to a special class. Children placed in this class are enabled to complete satisfactorily all the work of grades five and six in one year. No child is admitted to the special class without the approval of the parent or guardian.

—Supt. J. W. Gowans of Hutchinson, Kans., in his annual report, tells of the work and activities of the students in the regular and summer sessions of the schools. We show that through re-classification, supervision, and individual attention, the number of average students has been reduced ten per cent in the past four years. In the elementary schools the percentage of non-promotion has been kept down to 1.3 per cent during the past year. The senior high school showed a greater percentage 3.9, while at Sherman the percentage was 5.8 and at Liberty 2.1.

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THE TEACHER-ADVISOR

No social activity of the school is engaged in by the students of a well-ordered high school without the sympathetic, wise supervision and kindly counsel of a teacher-advisor. There is sometimes a question as to whether their supervision outside of school hours is as careful Almost every serious problem arising in the school is easily traceable to faulty or inadequate child-training in a broken home or in a home where children are over-indulged, undisciplined and neglected.—Rose Glass, Seattle, Wash.

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—New York, N. Y. Fully one thousand school children took the final examinations of the term in hospitals and convalescent homes during the week of June 14th. Most of them were physically handicapped children undergoing hospital treatment or recovering in convalescent homes in New York and vicinity. A small percentage were suffering from temporary illnesses or had undergone minor operations. Among the former are crippled children, those suffering from heart disease and tuberculosis, as well as those cases where the child's life depends upon constant medical supervision. About 68 cases are provided for in 36 hospitals and convalescent homes, where classroom or bedside instruction, or both, is given.

—Munhall, Pa. A summer school has been opened for the benefit of pupils who are weak in arithmetic. Failure or near-failure pupils are admitted for tutoring. A deposit of $2.50 is required of all students, which is returned if the attendance has reached 26 of the thirty days.

—Mrs. Carolina Jane Robbins Partenheimer of Northampton, Massachusetts, has completed her fiftieth year as a teacher. The occasion was celebrated by hundreds of her former pupils. She retired with the closing of the school term.

—Dr. N. D. Showalter, for eighteen years president of the normal school at Cheney, Washington, has resigned. The cause of the resignation, it is said, is due to the fact that the governor refused to permit the use of moneys appropriated by the legislature for the normal school.

—The Aberdeen, Washington, school authorities abandoned the idea of inviting distinguished out-of-town men to address the high school graduation class. All the addresses were delivered by the graduates. The Aberdeen World, in commenting on the change, says: "At the coming high school graduation exercises speakers and audience should have common property, at least, in their ideals. Whatever these youthful speakers may elect for their subjects, it is to be hoped that none will be so worldly wise, so worn, as to urge their rapid shedding. Only the lucky students will retain those ideals, anyway, a few years hence. Most of them will set up false gods, and there will be a few or many years of selfish scrambling before a fair proportion will have learned that it is ideals, in the business or professional field, that make life worth living."

—All the year sessions are proposed for the high schools of Omaha, Neb., following the successful experience of the technical high school with the four-quarter plan. This school has been operated forty-eight weeks a year for seven years, and the plan has proved very satisfactory.

—Portland's school board ranks among the foremost of the country in providing inducement for increased devotion to duty and professional growth among the teachers, according to Miss Julia A. Spooner, who gave a talk recently before the City Club of Portland, Ore., on "Laying a Foundation in the Elementary Schools." The newly organized department of research, generous sick leave, a single salary schedule, sabbatical leave and recognition of credits were mentioned as distinct forward steps in retaining a competent teaching staff.

—The Huerfano County high school board of Walsenburg, Colo., has adopted a resolution making it mandatory that all girl students dress alike during school hours. The rule goes into effect on December first, but all students in position to comply with the same, may do so previous to that date.

—Twenty-two years of regular and punctual attendance at public schools is the creditable aggregate record of the five children of H. Elliott of Toronto, Canada. The record is attested by silver and bronze medals and certificates which have been won by the children.

—The Wisconsin Department of Public Instruction has ruled that a contract entered into between two members of a school board and a teacher on the 15th of February, providing that the teacher shall be paid $100 per month, carries with it a strong suspicion of collusion and must be considered void as against public policy. The school board is elected to look after the interests of the district and not to care for the financial welfare of individuals.

The same department has also ruled that the electors of a school district have full power to authorize a school board to dispose of a building which has not been used for any school purpose whatever for a considerable number of years. The law provides that if a school building is erected on a tract of land granted for school purposes, with the understanding that when the tract ceases to be used as a school site, the property again becomes a part of the adjoining land from which it was taken, and the owner has power to move or sell the school building within eight months after the tract ceases to be used for school purposes.

—Oakfield, N. Y., will erect a new school to cost $325,000.

—Rochester, Minn. A change has been made in the salary schedule, the grade minimum now being $1,035 instead of $1,100. The plan is to have the beginning teacher serve an apprenticeship, to create a selective group of teachers and to pay substantial increases to the best teachers without unduly increasing the instruction budget.

The salary increases depend upon several considerations aside from the rating given a teacher by the superintendent and supervisors. The final rating is not the estimate of the individual but the combined judgment of principals, supervisors, teachers' committee and superintendent.

—The school board of Ottawa, Illinois, has received an opinion from Attorney General Oscar E. Carlstrom that it is without authority to employ a school nurse.

"A board of education elected and organized under the general school law has all the powers of a board of school directors whose duties and powers are specified under the law," the attorney general said. "The statute specified that 'school districts are quasi-municipal corporations; they are involuntary political or civil divisions of the state, created purely as auxiliaries to aid in the general administration of the government. They are limited in those powers expressly granted or such as result by necessary implication from those granted.'

"In view, therefore, of the principle upheld in a number of cases and the absence of a statutory provision authorizing such board of education to employ such school nurse, I am of the opinion that the board is without power or authority to employ a nurse."

The New Level in School Building

Will It be Maintained?

As we turn the half way point at the end of the first six months of 1926, it becomes increasingly evident that the year 1926 will parallel the year 1924 in volume of schoolhouse construction, and in total value of new school buildings. Without question the year 1925 was the peak year of the present cycle and this is largely explained in the activity of New York City, Florida, and California. Florida continues active, and California shows the most active progress in school construction.

Early in July the Budget Committee of the New York school board announced its 1927 budget for elementary school teachers. Attention was directed to the fact that because of the number of pupils entering elementary schools of New York City, enrollment now reached a comparatively static point, showing practically no increase in the total from year to year. This was explained in the exodus of families to surburban communities, reduction in birth rate, and to the restriction of immigration.

Just as the City of New York will affect totals for all general building industries, just so schoolhouse construction in the metropolis will affect totals for schoolhouse construction. Despite New York City, bond sales for 1926 have maintained a level exceeding 1924, and omitting New York City, will exceed 1925. Similarly, contracts let show an increase over 1924 and 1925. A shrinkage in the square footage of schoolhouse construction as well as value in dollars suggest that our activity this year is in an increasingly large number of small buildings while large high school buildings for the time being are giving way to essential grade school construction.

Immigration Restriction

The restriction of immigration will very shortly begin to affect all elementary school enrollment. With shifts in population, many small town and rural school boards will find themselves slightly over-built. At the present time the shift from the country to the city is quite marked. The prosperity of American industry is causing a shift estimated for 1925 of 1.5 per cent. The Department of Agriculture has recently directed attention to the fact that in January, 1926, it estimated a 30,655,000 farm population as against 31,134,000 on January 1, 1925. The cityward movement is estimated at 479,000 for 1925.

With the splendid increases in high school enrollment we have given comparatively little attention to the static condition of grade school enrollment. Of course a twenty million enrollment in the elementary schools suggests a school problem involving slightly less than one-fifth of the total population of the country. In itself this has been enormous. As time has progressed, we have constructed our administration departments on the basis of a growing and expanding school plant.

The shift in population will bring local burdens to be solved by growing communities with well defined programs. The Florida boom seems to have stirred the California boomers. Competition by cities will be keen and active for many years. So long as we have food to supply another fifty million people, the tendency to grow and expand will continue uninterrupted. In the long swing we shall continue to grow for many years, with temporary check-ups during the periods of industrial slack.

Local Building Activity

In checking the bond sales map on this page, it will be noted that the area of Industrial Activity reflects an increase in the sale of school bonds for the first six months as against the same period of 1925. Even New York state, despite New York City, shows splendid progress in bond sales for the first half of 1926. Pennsylvania has fallen behind a little. The south is holding its own nicely. States showing little or no increase in the sale of school bonds over 1925 are showing no increase in population. In fact, with the shifts in population a number of states are showing a decline in schoolhouse construction.

With the exception of one or two states, local financing is adequate to cover all normal needs of education. We have learned pretty well to finance practically all building and operating developments. Local business conditions have been so uniformly good that despite the cry for help from the farmer, very steady progress in schoolhouse construction and general expenditures for education may be noted.

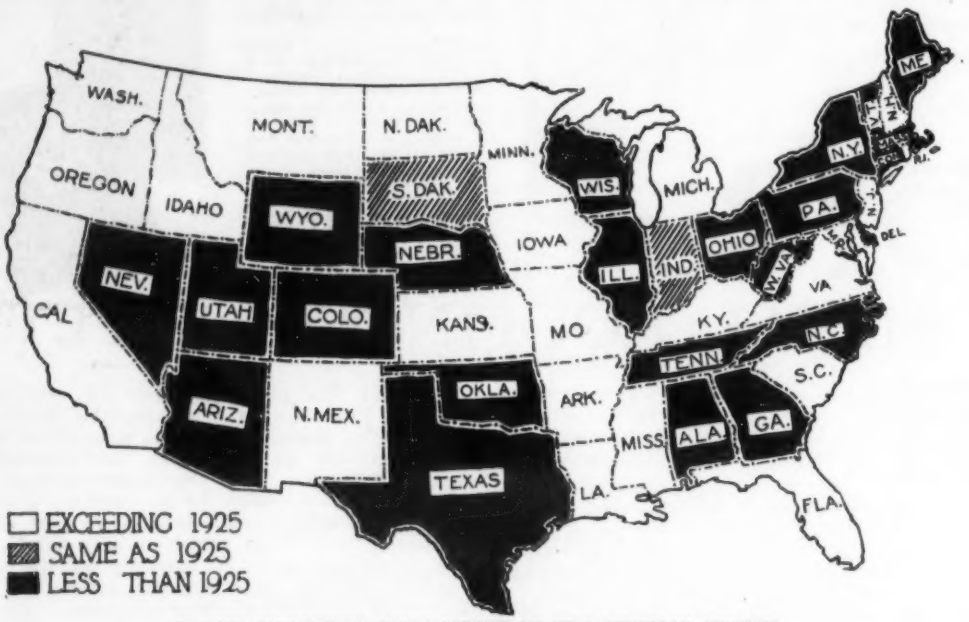
The idea of developing a community school building program is without question contributing to the idea of stability in education. With the business side of education more or less fixed as to personnel, sources of revenue, and methods of expenditure are being studied and fixed. The plan of the National Association of School Business Officials in making practically every convention topic a study to reflect average American conditions, is not only developing standards but fixing community programs over a period of years. A program of progress after the peak is passed of utmost importance looking to other peaks as the country grows and develops.

(Concluded on Page 116)

School Enrollment by States

State	Elementary	High School
Alabama	543,262	57,913
Arizona	70,439	8,603
Arkansas	474,427	27,331
California	713,553	151,568
Colorado	198,036	48,559
Connecticut	249,036	39,891
Delaware	33,421	5,143
District of Columbia	57,923	12,177
Florida	243,118	25,100
Georgia	683,816	59,403
Idaho	98,788	19,775
Illinois	1,098,298	117,740
Indiana	510,630	112,936
Iowa	461,428	100,445
Kansas	217,858	80,600
Kentucky	509,678	39,389
Louisiana	349,225	41,623
Maine	121,006	26,990
Maryland	216,921	27,275
Massachusetts	537,649	111,006
Michigan	684,269	115,015
Minnesota	447,624	78,359
Mississippi	541,854	30,174
Missouri	630,720	98,094
Montana	100,421	19,689
Nebraska	277,327	48,945
Nevada	13,284	2,633
New Hampshire	58,048	11,095
New Jersey	548,855	79,732
New Mexico	80,368	8,060
New York	1,604,592	286,638
North Carolina	720,655	73,360
North Dakota	151,262	23,535
Ohio	950,741	191,135
Oklahoma	567,024	71,867
Oregon	141,290	34,719
Pennsylvania	1,587,200	215,963
Rhode Island	93,291	12,609
South Carolina	423,748	43,686
South Dakota	138,355	23,406
Tennessee	604,991	49,292
Texas	1,017,814	176,841
Utah	106,995	23,327
Vermont	52,340	11,773
Virginia	489,960	49,767
Washington	254,602	61,386
West Virginia	364,402	29,302
Wisconsin	416,488	84,043
Wyoming	43,114	8,171
	20,500,746	3,076,074
Grand Total		23,576,820

Estimated Enrollment July 1, 1924.

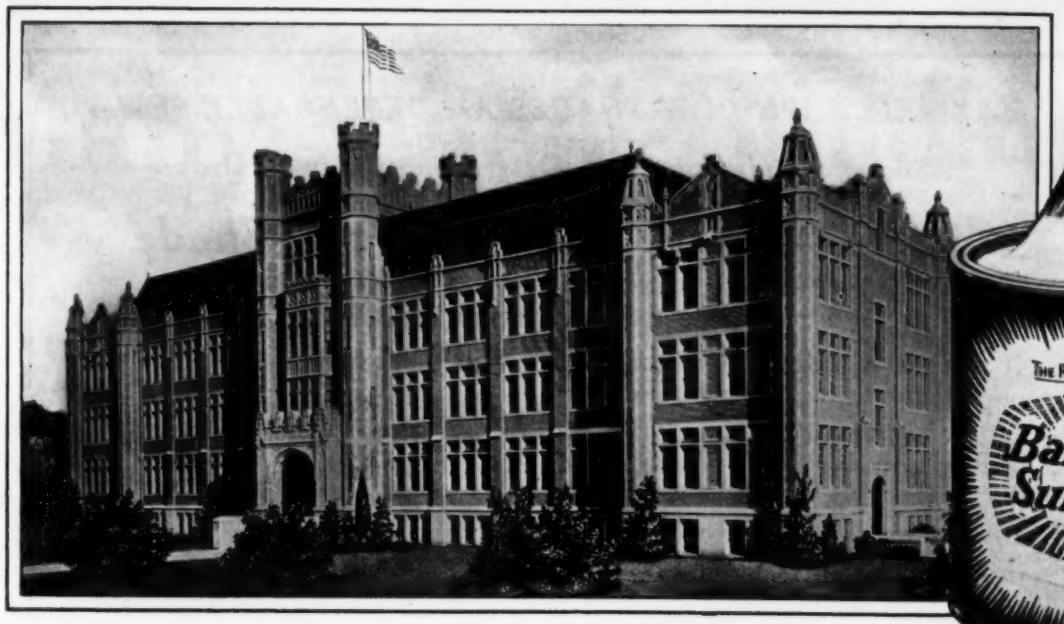


STATUS OF SCHOOL BOND ISSUES IN THE SEVERAL STATES, 1925 AND FIRST HALF OF 1926.

TABLE I. SCHOOL BOND SALES AND SCHOOLHOUSE CONSTRUCTION CONTRACTS FOR 1923-1926

Month	1923			1924			1925			1926		
	School Bond Sales[1]	CONTRACTS LET[2]		School Bond Sales[1]	CONTRACTS LET[2]		School Bond Sales[1]	CONTRACTS LET[2]		School Bond Sales[1]	CONTRACTS LET[2]	
		Sq. Feet	Value		Sq. Feet	Value		Sq. Feet	Value		Sq. Feet	Value
Jan.	$ 36,673,115	2,153,000	$ 13,906,000	$ 20,008,462	3,114,000	$ 31,155,000	$ 28,931,323	2,034,000	$ 13,595,000	$54,022,531	2,245,200	$13,346,200
Feb.	17,152,130	3,992,000	22,108,000	40,828,295	5,839,000	34,062,000	30,761,773	3,322,000	17,772,000	49,014,450	3,114,200	20,721,500
March.	19,496,025	4,092,000	22,550,000	37,021,484	5,748,000	18,519,000	22,468,500	5,209,000	40,541,000	16,265,292	4,000,100	29,079,700
April.	22,141,375	5,849,000	35,822,000	27,705,696	5,757,000	33,522,000	25,305,540	4,762,000	30,972,000	25,982,876	5,094,500	38,480,200
May	39,580,999	3,949,000	24,346,000	17,809,213	6,908,000	40,582,000	108,375,192	4,079,000	25,775,000	34,431,553	6,610,500	39,709,700
June	28,896,163	3,717,000	22,676,000	36,325,100	5,262,000	34,807,000	28,901,150	9,001,800	64,584,800			
July	32,497,952	4,131,000	27,512,000	18,645,980	6,150,000	39,511,000	24,196,675	7,644,500	57,672,000			
Aug	9,691,000	3,285,000	21,036,000	26,129,566	4,401,000	31,771,000	21,588,754	5,246,200	33,667,200			
Sept.	10,661,101	2,364,000	13,461,000	17,193,872	4,857,000	31,728,000	25,655,944	4,744,100	35,217,300			
Oct.	21,571,341	3,907,000	21,923,000	12,475,106	4,127,000	27,675,000	26,313,830	3,936,800	28,192,000			
Nov.	30,054,948	3,529,000	21,722,000	15,820,570	2,825,000	18,311,000	24,673,250	3,156,700	22,048,100			
Dec.	21,474,361	3,464,000	25,468,000	38,713,245	2,485,000	21,695,000	30,098,325	3,407,400	31,645,500			
Totals	$289,890,510	44,432,000	$272,530,000	$308,676,589	57,473,000	$363,338,000	$397,270,256	58,799,900	$423,203,700			

[1]Advertised School Bond Sales.
[2]Dodge Figures.



Architect, Wm. C. Lowndes, A. I. A.

Over 2,000 gallons of Barreled Sunlight, white and tinted, was used to paint the interior of this handsome building of the Woman's Institute of Domestic Arts and Sciences, Inc., at Scranton, Pa.

Lasting cleanliness and better light—when walls and woodwork are painted with lustrous, washable Barreled Sunlight!

This clean, handsome, durable finish

for school interior use in white or easily tinted

PAINTING school walls and woodwork with Barreled Sunlight is the modern way to insure lasting cleanliness and better light.

Three different finishes—all easily tinted—make this famous product available for every interior job.

Most practical for places that require maximum light and sanitary cleanliness is Barreled Sunlight Gloss. Its lustrous surface is so satin-smooth it washes like tile, and so durable that repeated washings will not injure it. Handsome as the finest enamel, it costs less and requires fewer coats.

* * *

Where less than a full gloss is required, the logical choice is Barreled Sunlight Semi-Gloss, an unusual combination of good looks and ease of maintenance.

And for the duller effect sometimes preferred on walls of well-lighted rooms, Barreled Sunlight Flat finish is ideal. This, too, is washable—though naturally less durable under constant washing than the Gloss or Semi-Gloss.

BARRELED SUNLIGHT "covers" so well, and flows on so easily with brush or spray, that it does the complete job at the *lowest cost per square foot of surface covered*.

Sold in 55- and 30-gallon churn-equipped steel drums, and in 5- and 1-gallon cans. Where more than one coat is required, use Barreled Sunlight Undercoat first.

There is a local distributor of Barreled Sunlight in all principal cities.

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Please send me descriptive literature and sample panel painted with Barreled Sunlight. I am interested in the finish checked here—

Gloss ( ) Semi-Gloss ( ) Flat ( )

Name .....

Street .....

City ..... State .....

(Concluded from Page 114)

School Enrollment in September

It will be interesting to study school enrollment figures next September. A number of states will show no increase in enrollment for elementary schools. High school enrollment will continue to increase. There will be important increases in attendance in vocational schools, junior high schools, etc. We are selling education very successfully both in quantity and variety.

As a great industrial nation we recognize the necessity of preparation for life and the value of opportunities which education provides. We are willing spenders for education. With the necessity of excessive expansion passed, we shall concentrate on efficiency and quality in the development of our machinery for education and its more efficient operation. The next ten years the administrator will try to buy more for the school dollar and demand more in the way of returns for all expenditures made.

PERSONAL NEWS OF SUPERINTENDENTS

Superintendent Holmes Honored

On June 14th, Supt. Stanley H. Holmes of New Britain, Conn., was tendered a testimonial dinner by the teachers and supervisors of New Britain, Conn., in recognition of his twenty years' of service as head of the New Britain school system. A personal tribute in the form of a book dealing with the history of the New Britain schools and a silver set, purchased by the members of the board of education, were presented to Mr. Holmes. The speakers of the evening included Mr. Patrick F. King, president of the board of education, Mayor G. C. Weld, and Judge B. F. Gaffney, formerly president of the board of education. Officers of the parent-teachers' association and members of the board of education made brief addresses.

AMONG SUPERINTENDENTS

—Charles E. Kenney was named principal of the senior high school at Charleston, West Virginia. Dwight E. Pullen of Ann Arbor, Mich., succeeds Mr. Kenney.

—At Fort Wayne, Indiana, M. H. Northrop has been chosen principal of the North Side high school. Louis C. Ward, superintendent, and Francis M. Price, assistant superintendent, have been identified with the Fort Wayne school system since 1907.

—The school board of Baltimore, Maryland, has appointed Dr. Frank R. Blake as principal to the local city college. Dr. Phillip H. Edwards was made vice-principal.

—Allen S. Davis of Cape Vincent, New York, has been appointed principal of the Livingston Manor school at Roscoe, New York.

—E. E. Mitchell is the new superintendent of the Litchfield, Illinois, schools. He came from Great Bend, Kansas.

—W. D. Shadwick, principal of the Jefferson school at Billings, Montana, has been elected superintendent of schools at Rockport, Missouri.

—D. Edward Hickey, superintendent of South St. Paul, Minnesota, has been appointed to the superintendency at Oconto, Wisconsin. His salary is fixed at $3,750.

—R. W. Solomon was reelected superintendent of the Middletown, Ohio, schools for a term of five years. His salary for the first two years will be $5,800 and for the remaining three years $6,000. Solomon came to Middletown from Fostoria in 1918.

—Chester D. Stiles was reelected superintendent at Westfield. Mass.

—Charles Grothaus of New Bremen, Ohio, was chosen superintendent at Belle Center, Ohio, to succeed Homer B. Wood, resigned.

—H. V. Calhoun has been chosen superintendent of the Belleville, Ill., schools at a salary of $3,600. He succeeds William A. Hough who resigned.

—F. W. Tuohy of Chelsea, Mich., was appointed superintendent of the Morenci, Mich., schools. He succeeds Bryan Heise who resigned to accept an instructorship in the Ypsilanti Normal School.

—W. G. Halley of Bellefontaine, Ohio, has accepted the superintendency of the Jefferson township schools at Zanesville, Ohio.

—Everett Wiley of Zionsville, Ind., was elected superintendent of schools at Greenwood, Ind. He succeeds L. R. Hoover, deceased. Mr. Wiley is a graduate of Franklin College.

—Charles A. Kittrell of Lemars, Iowa, was elected superintendent of the Waterloo, Iowa, schools.

Kittrell taught in the schools of Pleasant Plain, Ia., from 1909 to 1911; in the Bent county high school, Las Animas, Colo., 1911 to 1912; taught in the high school at Devils Lake, N. D., for three years, from 1912 to 1916, and was principal seven years, from 1915 to 1922. He is a graduate of the Iowa University.

—Superintendent Ernest C. Hartwell of Buffalo, New York, delivered a high school graduation address at Ann Arbor, Mich.

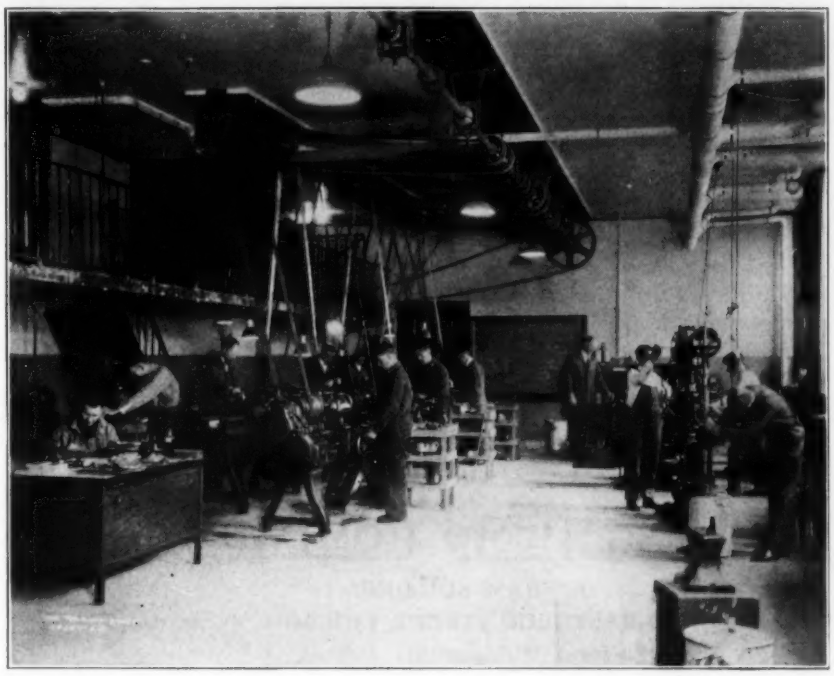
—The teachers' club of New Britain, Conn., recently gave a testimonial dinner in honor of Stanley H. Holmes, superintendent of the New Britain schools.

—Albany, New York. The board of regents of New York state has appointed Dr. August S. Downing as deputy state commissioner to succeed Judge Frank B. Gilbert who resigned to enter the private practice of law. The board of regents also made the following changes in the staff of the department of education which became effective on July 1st: Dr. George M. Wiley, formerly assistant commissioner for elementary education became assistant commissioner for secondary education; Dr. J. Cayce Morrison of Ohio State University succeeds Dr. Wiley as assistant commissioner for elementary education.

—Mr. J. M. Berkey, director of extension education in Pittsburgh, Pa., retired from public school work in June, after a service of 51 years.

(Concluded on Page 118)

Many School-Building Surfaces Require Special Paints



The cement floors of machine shops in vocational training departments need special protection. These floors are subjected to constant friction from the shoes of the students which causes "dusting." This fine granolithic dust is harmful to the students and works into the machinery causing trouble. Our Floorkote is designed especially to remedy this condition and to resist oil, frequent cleaning and hard wear.

IT is too much to expect an ordinary paint to give as good service under severe exposure as a coating designed to withstand that particular treatment.

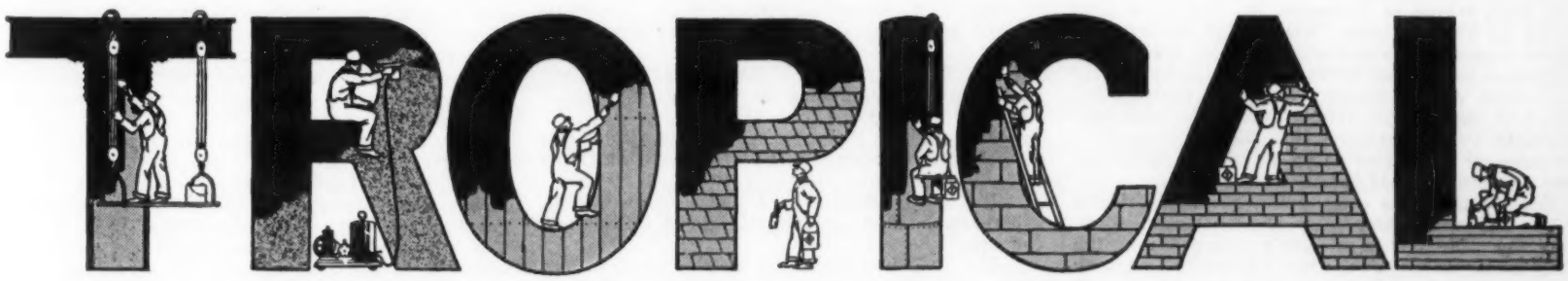
For instance, the walls of wash rooms are continually splashed with water and must frequently be washed and scrubbed in order to keep them in a sanitary condition. Ordinary paints soon go to pieces under such treatment, but a special paint like Toconamel will hold up for a surprisingly long time.

There are many other surfaces in a school building that require special coatings. The coupon below shows a list of them. If you are expecting to refinish any of these hard-to-paint surfaces, it will pay you to get our recommendations and prices.

For years we have specialized in the manufacture of special paints, enamels, varnishes and roof cements for the protection and decoration of surfaces exposed to severe and unusual conditions. We number among our customers such prominent educational institutions as Harvard, Princeton, Amherst, Northwestern and Vanderbilt.

A new 56 page illustrated catalogue of our line will be sent upon request. It contains a complete list of school building surfaces, together with a brief description of the coating that we recommend for the protection of each one of them. Use the coupon to ask for a copy of this helpful book. We sell direct to schools and colleges.

The Tropical Paint & Oil Co., 1228-1270 W. 70th St., Cleveland, Ohio



THESE SURFACES NEED EXTRA PROTECTION

If you will check the surfaces that you expect to paint and return this coupon, we will tell you the best way to properly protect them and send quotations and complete facts on the Tropical Products required.

- ☐ Swimming Pools
- ☐ Shower Baths
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- ☐ Laboratories
- ☐ Boiler Settings
- ☐ Boiler Fronts
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We are expecting to refinish the surfaces checked on this coupon. Please send us, without obligation, your recommendations on the best way to protect and decorate them. Also, we'd like prices on the Tropical Products needed for the work.

☐ **We would like a free copy of your 56 page illustrated catalogue.**

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Title .....

City .....

State .....

8-26

(Concluded from Page 116)

Mr. Berkey will continue his work as instructor in teacher training courses for extension workers at the University of Pittsburgh.

—Mr. D. D. Jackson has resigned as superintendent of schools at Dalhart, Tex., to join the faculty of one of the junior colleges established by the University of Texas.

—Mr. John A. Linebarger of Montezuma, Ind., has been nominated for state superintendent of schools. He is a graduate of DePauw University and has completed twenty years' work as superintendent of the Rockville schools.

—Mr. F. G. Stevenson, formerly principal of the high school at Dubuque, Ia., and since 1923 head of the Saginaw, Mich., high school, has been appointed superintendent of schools at Dubuque to succeed O. P. Flower.

—Supt. J. A. Churchill, who has been at the head of the Oregon school system for the past thirteen years, resigned the office on June first to take up his duties as president of the Southern Oregon Normal School at Ashland.

Mr. Churchill is a graduate of the Northern Ohio University and holds the B. A. and M. A. degrees. He has a master's degree from the University of Oregon. Mr. Churchill brings to the presidency of the normal the experiences of many years of successful service, as well as a natural fitness for the position.

—John A. Lapp of Chicago has been elected president of the National Conference of Social Work. Mr. Lapp is widely known in educational circles and is the author of a number of books widely used in the schools. He was a member of the Federal Commission on Vocational Education and more recently had devoted his attention to the field of social welfare and social science education.

—Supt. C. R. Stone of Munhall, Pa., has been reelected for another four-year term, at an increase of $1,000 per annum. Mr. Stone has completed eleven years' service as superintendent.

—Mr. T. F. Howard of San Antonio, Tex., has accepted the superintendency of the Alamo Heights schools, in a suburb of San Antonio.

—Mr. R. R. Turner, of Dallas, Oregon, has been appointed to the office of state superintendent of public instruction, to succeed J. A. Churchill, who has accepted the presidency of the new normal school at Ashland.

Mr. Turner was educated at Staunton, Va., at Washington and Lee University, Lexington, and completed a special course at the University of Oregon. His school experience covers a period of 23 years during which time he served as principal and superintendent. He served as a member of the state board of examiners for normal schools and a year ago was selected by the governor as a member of the state textbook commission. Mr. Turner was superintendent of schools at Dallas and is widely and favorably known throughout the state.

—Mr. A. E. Jones has been elected superintendent of schools at North Sanpete, Utah.

—Mr. J. A. Ewart of Milton, Mass., has been elected superintendent of schools at Stamford, Conn.

—Mr. Wm. A. Houth of Belleville, Ill., has resigned, after completing 49 years as an educator.

—Mr. James McCarter of Lyons. Ind., has been elected superintendent of schools at Bicknell.

—Mr. Bert Magladry of Deer River, Minn., has been elected superintendent of schools at Barnum.

—Mr. J. Elmer Pentacost of Danville, Ill., has been elected superintendent of schools at Cullom.

Dr. Harold F. Clark, associate professor of education, Indiana University, has been granted a leave of absence for a year to pursue advanced study in economics and finance in the University of London. Dr. Clark's work will be in the main with Edwin Cameron, professor of political economy and R. H. Tawney, reader in economic history.

—The Boston school board appointed Anna M. Niland, Elizabeth V. Cloney, Vincent A. Keenan, and James E. Lynch to principalships.

—Irving C. Mitchell was reelected superintendent of the Cumberland, R. I., schools.

—Gardner P. Balch who served for twenty-seven years as principal was tendered a testimonial reception attended by over 1,000 persons. Dr. Jeremiah E. Burke, superintendent, paid him a high tribute.

—W. F. Slagle was reelected superintendent of the Everton, Arkansas, schools.

—David R. Rohrbach was reelected superintendent of schools at Egg Harbor City, N. J., for the eighteenth year at an increased salary.

—E. M. Blasbaugh was reelected superintendent of the Lansford, Pennsylvania, schools at a salary of $5,000 for a term of four years.

—After a bitter fight the school committee of Barnstable, Mass., reelected L. M. Boody principal of the high school. Boody has been with the school for thirty-one years and enjoys the confidence of the public. The members of the school committee are Judge C. L. Campbell of Hyannis, Walter F. Fuller of Osterville, and J. Cobb of Barnstable. A public indignation meeting which had been called was cancelled.

—The removal of Superintendent William E. Stark by the Stamford, Conn., school committee has resulted in a citizens' organization known as the Stamford Public School Association. The purpose of the association is to promote the interests of public education and "to recommend to the association nominees for school committee members."

—D. H. Haldaman goes as superintendent from Perryville to Esther, Mo.

—William Harris, Urbana, Ill., has been chosen superintendent of schools by the Decatur board of education. He succeeds J. J. Richeson, who recently resigned to accept the superintendency of the Youngstown, O., school system.

—Mr. N. W. Frasure has been elected superintendent of the schools at Basil, Ohio.

—Supt. E. H. Drake of Kalamazoo, Mich., has been reelected with an annual salary of $6,250.

—Dr. Edward W. Stitt, associate superintendent of schools, and chairman of the committee on textbooks of the board of superintendents, New York City, in discussing the action of the Chicago board of education in refusing to place upon the list a book written by a district superintendent, expressed strongly his opinion that to refuse to list books written by those engaged in the schools would be unwise. He brought out the fact that the open textbook list plan has been followed in New York for many years, and some of the best books have been written by teachers, principals, and superintendents in the schools. He emphasized that in refusing permission to members of the teaching and supervising staffs to write books the board would eventually stifle their independent study and professional research.

(Concluded on Page 121)

Main Avenue High School, San Antonio, Texas. A Dunham Heated School with 12,000 sq. ft. of radiation.

DUNHAM HEATING Keeps Teachers and Pupils Fit for Class Room Duties

Dunham Low Pressure Steam Heating supplies the kind of warmth that promotes health, comfort and efficient work on the part of teachers and students. The temperature in every room of a Dunham Heated school is kept always at the right point and is easily controlled by a turn of the Dunham Packless Radiator Valve.

The flexibility of the Dunham System enables the janitor or engineer to heat the rooms quickly on cold mornings. The steam fills the radiators without thumping or pounding because the Dunham Thermostatic Traps eliminate all air and water and at the same time prevent steam from escaping into the return pipes.

This efficient operation makes a very noticeable saving in fuel and that is why economy is an outstanding feature of every Dunham installation.

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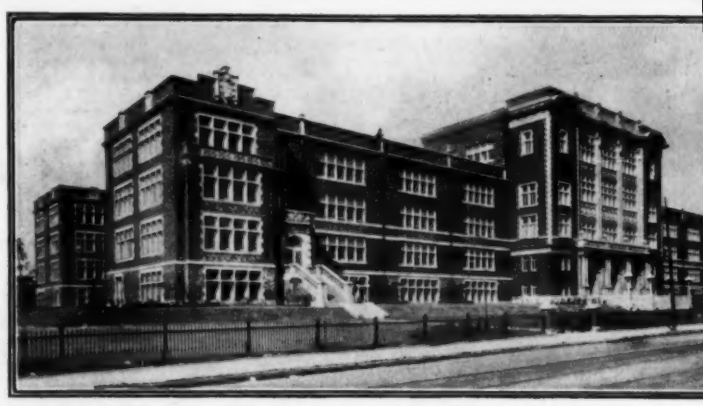
The DUNHAM REG. TRADE MARK HEATING SERVICE

Peabody High School, Pittsburgh, Pa., heated by a Dunham System with 81,000 sq. ft. of radiation.



Beaumont High School, St. Louis, Mo., Equipped with Electrozone Water Sterilizers. R. M. Milligan, Architect. E. S. Hallett, Engineer.

40,000 gallons capacity. 5,000 gallons per hour. Complete recirculation every 8 hours.

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—Supt. E. B. Stover of Orange, Tex., has been re-elected for a two-year term. Mr. Stover has completed eleven years of service. During this time the value of the school property has increased tenfold, the buildings have been made modern and safe for school use, and the school enrollment has reached 2,300. At present 45 per cent of the grade teachers hold degrees from standard colleges, and it is the policy of the board to employ only degree graduates for the future.

—Supt. C. M. Bardwell of Aurora, Ill., has been reelected for another year.

—Mr. W. W. Beatty of Winnetka, Ill., has accepted the superintendency at Bronxville, N. Y.

—Mr. R. S. Dewey of Kane, Pa., has been elected superintendent of schools at Corry, succeeding M. L. Brown.

NEWS OF OFFICIALS

—Mrs. Agnes B. Wauters has been elected president of the board of education at Bayonne, N. J. Mrs. Wauters has been a member of the board for several years and succeeds Dr. P. W. Sladzien.

—John E. Baumgartner, secretary of the school board of Davenport, Ia., has been re-elected, with a substantial increase in salary.

—Mr. T. T. Rodes, secretary of the school board at Paris, Mo., has resigned after a service of 38 years.

—Mr. Robert C. Hall, purchasing agent of the board of education of Dayton, O., has resigned, after a service of twenty years.

—Mr. W. M. Kline has been appointed secretary to George W. Graham, business manager of the Dayton board of education.

—Mr. Raymond Courtney has been elected president of the school board of Tulsa, Okla.

—Mr. Amos E. Ayres, president of the school board of Sioux Falls, S. D., has been reelected for an eighth term.

—Michael Driscoll who recently died at Brookline, Massachusetts, was a member of the local school committee for fifty-two years.

—Dr. J. A. Averdick, member of the board of education at Covington, Ky., is serving his 42nd year as a member of that body.

—Thomas Sullivan was appointed secretary of the Cumberland, R. I., school board. John Shea was elected chairman.

—Miss Esther Smith, an instructor in the Tilghamar high school of Paducah, Kentucky, was not reappointed because she had undermined, it was charged, the religious beliefs of her pupils. Upon a hearing granted by the school board Miss Smith was exonerated and reinstated.

—A. Lazarus was reelected president of the Camden, Arkansas, school board.

—J. Alan Fledderman was recently appointed member of the Baltimore, Maryland, school board by Mayor Jackson to succeed Alexander C. Cummings, deceased. Mr. Fledderman is at the head of an old and well established business firm. The other members of the board are Frank J. Goodnow, Warren S. Seipp, Theodore E. Straus, John W. Marshall, Mrs. J. W. Brown, Mrs. L. H. Levin, and Clarence K. Bowie. William L. Rowls is the president and John H. Roche, the secretary.

—John W. Graham has been named business manager of the Dayton, Ohio, school systems. Mr. Graham served as city engineer at Chillicothe, Ohio, before coming to Dayton.

—Miss Isabelle Sims has been elected president of the school board at Newark, N. J. Dr. A. Ill has been elected vice-president.

—Mr. Roy Breazeale has been reelected secretary of the board at Joplin, Mo.

—Mr. Ralph Williams has been reelected secretary of the school board at Omaha, Neb.

—Mr. E. J. McGrew, president of the board of education at Lexington, Mo., resigned recently to accept the secretaryship of the state highway commission. Mr. E. M. Little was appointed to fill the vacancy. Mr. Worth Bates was elected president, and Mr. Little, vice-president.

—Mr. O. A. Earl has been reelected as president of the board of education at Kalamazoo, Mich.

—Mr. J. F. Witter has been reelected president of the board of education at Rock Island, Ill.

—Mr. Homer Weeks of Anadarko, Okla., has been elected superintendent of schools at Ringling, to succeed S. O. Pool.

—Mr. R. W. Kuhlman has been elected superintendent of schools at New Knoxville, O., to succeed August Schad.

—Mr. Simon M. Horstick of Berwyn, Pa., has been elected superintendent of schools at Pleasantville, N. J.

—The office of secretary of the school board and superintendent of buildings at Iowa City, Ia., has been discontinued. Mr. W. L. Kanak has been employed as secretary, at a salary of $400 a year, and Mr. George Edelstein as superintendent of buildings and grounds, at a salary of $2,000 per year.

NATURAL LIGHT BEST

Natural light in school buildings is urged in a report based upon national findings and made public by the Eyesight Conservation Council of America.

"Even though the provisions for adequate daylighting should entail a cost in excess of artificial lighting," says the report, "the adoption of artificial light as the sole source of illumination for schools, as has been advocated by some, and the failure to provide adequate natural illumination, would probably be a false economy."

The investigation of school architecture and construction was directed by Dr. Taliaferro Clark, U. S. Health Officer, formerly in charge of field investigations in child hygiene, assisted by Arthur F. Beal. It showed that defective illumination of classrooms has an adverse influence on the activity of the intellectual processes of children.

The investigators, according to the report, studied the relative value of daylighting and artificial lighting, concluding that "owing to the manner in which the human eye has developed during many ages under natural lighting conditions, the great changes in the intensity of daylight, varying as much as 1,000 candles and more within a few minutes, are less trying to the eye than are the variations of relatively few foot candles of artificial light."

The printed page may be read without visual discomfort under very high daylight illumination, whereas under conditions demanding artificial illumination similar and unnecessary high intensities would cause discomfort, the report points out.

HEAT FOR SCHOOLS FROM A RIVER BED

How the Public Schools of Pennsylvania Have Economized Through the Use of "River Coal," Combined With Forced Draft and Automatic Stokers

High coal prices and fuel scarcity have no worries for the school officials of eastern Pennsylvania because of the adoption of river coal for fuel in school buildings. River coal is small sized anthracite which washes down the Susquehanna River from the mining districts; the coal forms bars in the river, much like sandbars, and is collected by means of so-called "pumpers." These pumpers collect the coal and sand from the river bed and discharge the mixture onto a screen, which separates the sand from the coal.

In Harrisburg, where the river coal mining project was undertaken some years ago, the plan has proven remarkably successful and economical. Due to the perfect draft control, better heating of the buildings has been possible, with a low cost for fuel. The plan involves the use of special furnace equipment, embodying special grates, blowers and control apparatus.

In the last six years it is estimated that over one hundred school heating plants in Pennsylvania have been changed from natural draft and anthracite or bituminous coal, to forced draft systems and mine or river anthracite coal.

The change has involved engineering service and equipment for twelve complete school districts in eastern Pennsylvania, as well as work in many scattered districts. In such cities as Harrisburg, Easton, and Sunbury, it has included the equipping of elementary, junior high, senior high, and even portable schools, with consumptions per school ranging from eight to more than 600 tons of coal a year.

In the opinion of the engineers, the success of forced draft depends one-half on the proper equipment and one-half upon the operation of that equipment. A shaking grate has been designed for use with this coal, using combined hand and automatic regulation. In each case the installation is designed individually. The amount of coal per hour is determined, and from that is estimated the size of the blower and grate needed for the particular system. The shaking grate loses less unburned coal than the stationary grate, and it reduces the chances of burning out a grate. It shakes down the fine ash as it forms, and this is cleaned out through the ash pit. The method materially reduces the ash pit pressures required and this in turn affects the blower.

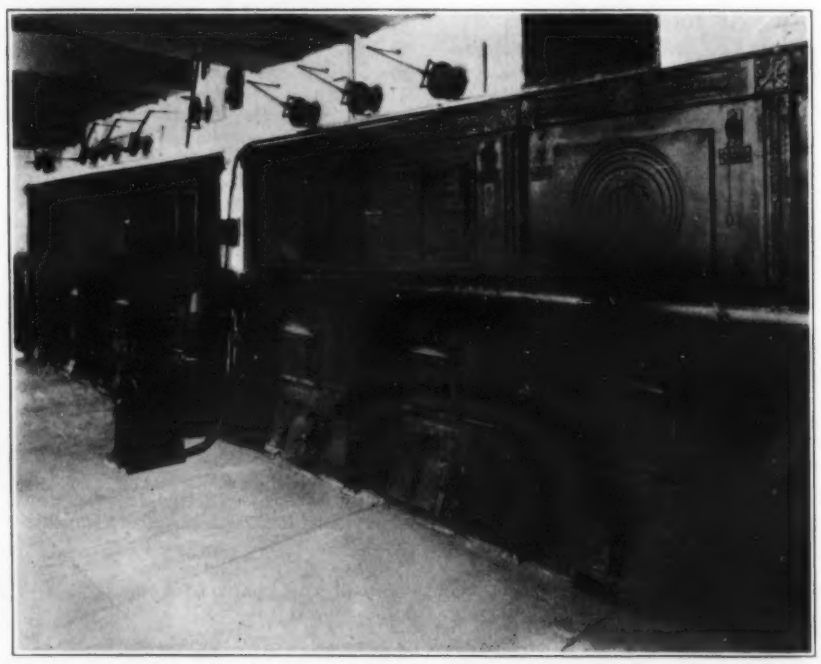
Next in importance to the blower and grate is the control. Hand and automatic control for both air and electrical power give maximum efficiency, while safeguarding boilers against excessive pressures. There are records of installations where inadequate control caused wrecked boilers and equipment.

The forced draft installations have been adapted to nearly every make of steam boiler and hot air furnace on the market. It has been shown that hot air furnaces equipped with forced draft produce results quite as good as those achieved in steam installations.

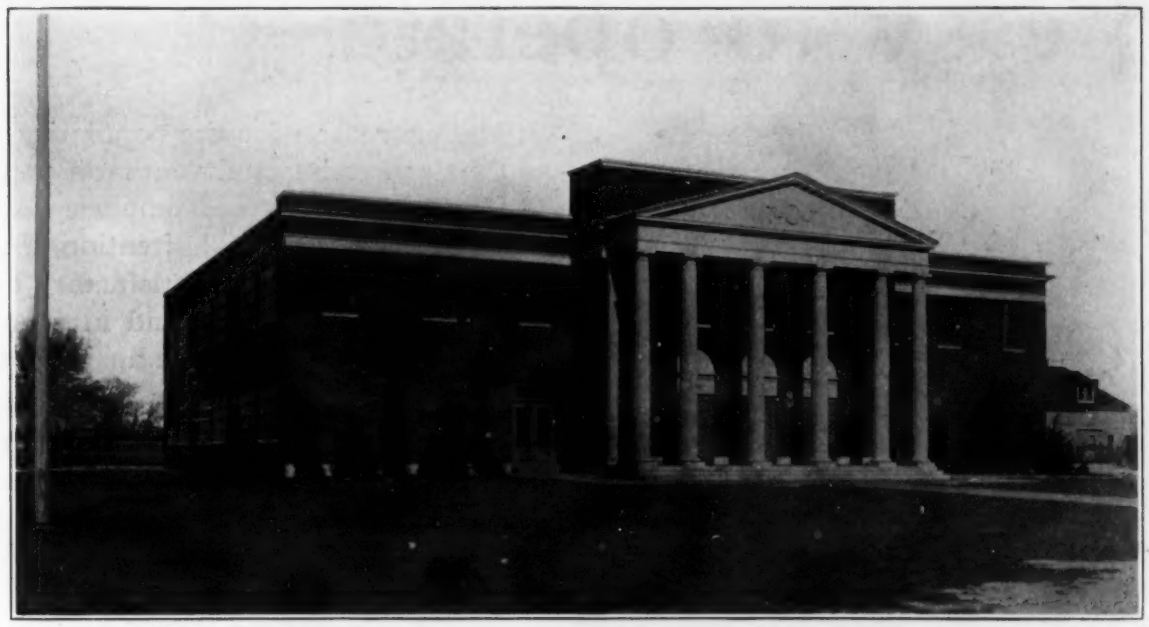
In order to make the plan successful it is necessary that the equipment be properly operated. In each case, direct, expert supervision has been carried out, which includes the instruction of janitors, the selection of the fuel, and constant periodic inspection by the experts of the engineering firm. The forced draft which is obtained by means of a Sirocco fan, has made it possible for school systems to save thousands of dollars yearly. The fans range from 100 to 3,000 cubic feet per minute capacity and furnish a draft which permits the use of the fine coal at a greatly reduced cost.

Among the advantages claimed for the new system are quicker fires, a smaller quantity of fuel, and a reduced coal cost. The janitor-engineers find that by building up their fires so much quicker with forced draft, they do not have to be on the job until seven o'clock in the

(Concluded on Page 124)



DRAFT SYSTEM, STEELE GRADE SCHOOL, HARRISBURG, PA.



SCHOOL BUILDING AT CENTER MORICHES, LONG ISLAND, NEW YORK

Architect—LEWIS INGLEE, AMITYVILLE, N. Y. *Heating Contractors*— ROBINSON BROTHERS, SOUTH HAMPTON, N. Y.

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321 Bulletin Bldg., Philadelphia, Pa.
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Pales Building, Seattle, Washington.
226 Kirk Ave., Syracuse, N. Y.
1101 Realty Building, Youngstown, Ohio.

morning in order to have their buildings heated for the opening session. With natural draft, the engineers formerly were obliged to get up at four or five o'clock in the morning in cold weather. It is also possible to bank the fires Friday afternoon and leave them until Monday morning, unless there is danger of freezing.

The quantity of fine coal consumed with forced draft is estimated to be no greater than the quantity of large anthracite and bituminous coal required, using natural draft. In most cases, less fine coal is used, in some cases, as much as twenty per cent less. A typical example is the Central High School of Harrisburg, which burned 323 tons of a mixture of pea and broken anthracite under natural draft. With forced draft, the second year's operation showed a consumption of 296.12 tons of fine coal, making a considerable saving over the last year of natural draft operation.

In Harrisburg, H. P. Gould Co., engineers, found that the fuel costs have been reduced over 75 per cent by these improvements. The present fuel consumption is 7,500 tons a year. Under old prices for large coal, at $12 a ton, the cost would have reached $90,000. With the use of river coal, at $2.20 a ton, the cost has been reduced to $16,500. Current for the blower averages thirty cents a ton, or an additional cost of $2,250. The total saving in fuel amounts to $71,250 a year.

Easton affords an example of normal saving in fuel cost. Here the school board pays $4.50 to $5 a ton for fine rice coal, delivered to the bins. Large anthracite costs from $14 to $18 a ton. In a year the fuel costs for heating twelve schools and a library have been reduced from $16,000 with anthracite coal, to less than $7,000, using forced draft and fine mine run coal.

In every case, it is shown that the change in the heating system and fuel has paid for itself between the second and the third year of operation.

TRUANCY WORK IN PROVIDENCE, R. I.

The director of attendance and discipline in the public schools of Providence, R. I., Mr. Daniel G. Aldrich, declares that the job of the department is one-fourth school work and three-fourths community work. In this way Mr. Aldrich describes the present-day conception of the method of dealing with the truancy problem, a conception as different from that of a decade or two ago as black from white.

The old-time truant officer concerned himself always with effects, never with causes, and so the results of his work were temporary, rather than permanent. He relied upon fear as his sole weapon, overlooking the more potent influence of understanding and intelligently extended aid. He went on the theory that if a boy stayed away from school it was because of some perverse trait that could be cured only by punishment or the threat of it. It never occurred to him that the fault might lie in the school itself, in the boy's home, or in the community, and that if it did and if he persisted in forcing the boy back into school, without changing conditions, he was not helping to make the boy a good citizen.

In the modern conception of the truant officer's duties, these things are held to be all-important. Every instance of truancy is met with the question, "why?" It is the job of the officer to find the answer to that question and then to remove, so far as possible, the cause of the delinquency.

It isn't a scheme for excusing or condoning an intelligent effort to help boys and girls over some of the rough places of youth and to set right, if possible, their outlook on life.

In Providence the new plan has been in operation less than a year and there has been a reduction in truancy and an improvement in school work.

NEW YORK SUPERINTENDENT FAVORS USE OF TEXTBOOKS BY TEACHERS AND SUPERINTENDENTS

Supt. William J. O'Shea of New York City has written a letter to Supt. William McAndrew of Chicago, in which he sets forth the reasons why he thinks the city board of education should not bar books from its schools which are written by teachers or supervisors. He writes:

"In my long experience as principal, district superintendent, associate superintendent, and superintendent of schools, I have found it the most practical and efficient way of handling the textbook problem.

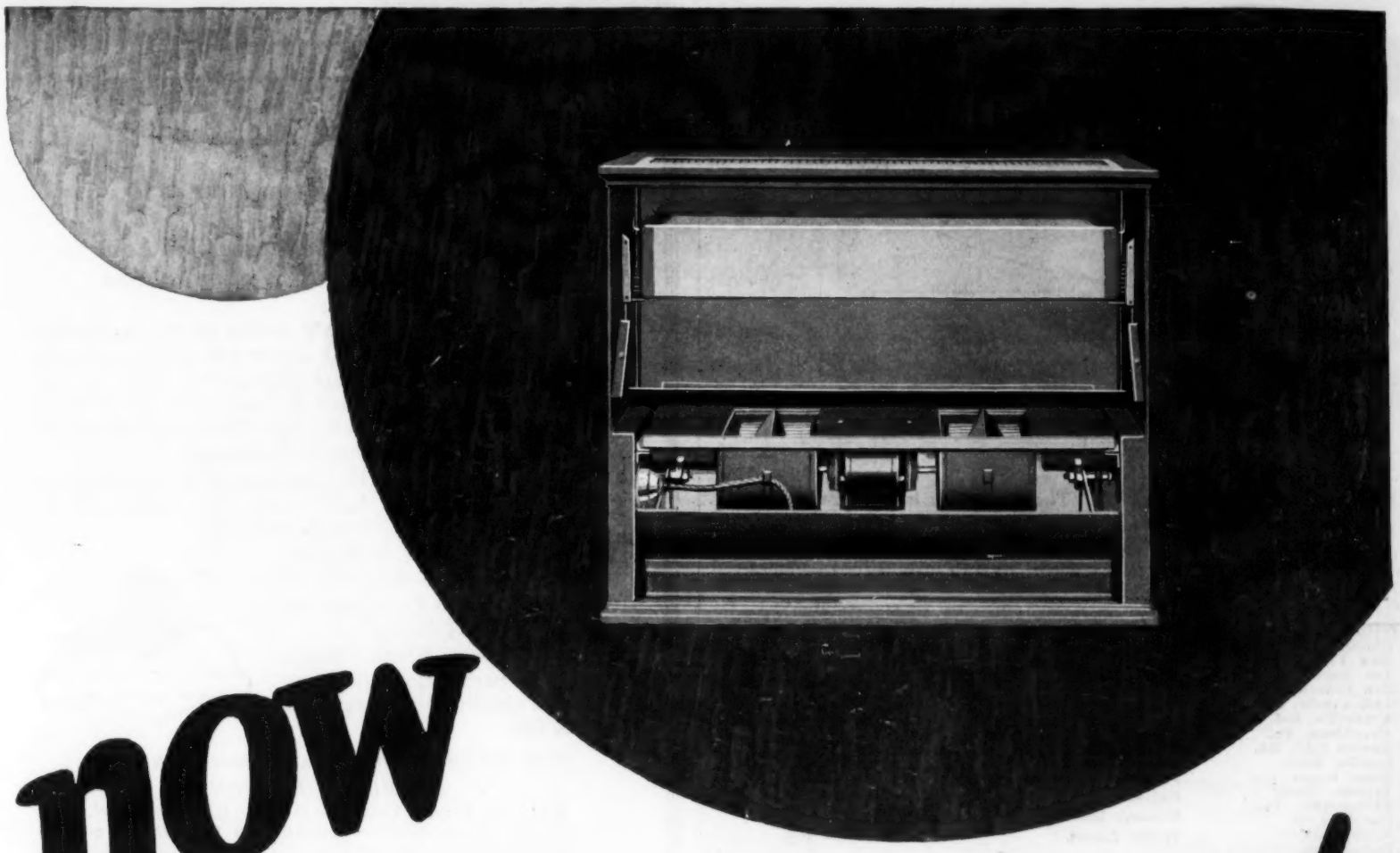
"From time to time the question of the efficiency of the open list has been questioned by laymen and on all occasions independent investigation has convinced them that it is to the best interests of the school to continue this manner of handling textbooks. Briefly, there are three reasons.

"First, an open list permits of a flexibility in a cosmopolitan city. It is too obvious for argument that a school composed largely of children of non-English speaking parents may, because of the very fact of language difficulties, be unable to use the same type of book as a school where the English language is the language of the home. Furthermore, in many of the schools there are children of high mentality who can handle one type of textbook, while children of lesser mental attainment require a different type.

"Second, the effect of the power of choice of textbooks upon teachers and principals is marked. It keeps these active workers in the school keenly alive to progress in education. The fact that the responsibility of choice is on their shoulders makes them careful students and shrewd selectors of textbooks. The natural result of this is a marked tendency to eliminate the old habit of blaming the tools when results are not satisfactory.

"Third, of no less importance than the foregoing is the fact that the open list eliminates all possibility of any outside influence itself in the use of textbooks in the schools. We have been careful in recent years not to overload our list with unnecessary books, but where investigation and study of a textbook leads us to believe that it has a contribution to make to our schools, it automatically is placed upon the lists on the recommendation of the board of superintendents. We note, too, the keenness of competition on the part of the schoolbook companies to supply us with the books that meet the peculiar needs of the schools.

"These, I think, are the most important points which stand out in favor of the open textbook list which has for so long proved satisfactory and above criticism in the city.



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THE TENNESSEE HIGH SCHOOL FUNDS

Within the past few years remarkable progress has been made in the educational system of Tennessee. The greatest stress has been placed on the elementary schools and most persons realize why this was done.

The high schools were established fifteen years ago and they have been steadfastly maintained. The result is that the state has a system of high schools second to none in the south, and second to few states in the Union. If the high schools are to grow and increase in efficiency as they should, if they are to continue to receive the respect and support that they should receive, it will be necessary to improve the elementary schools so that a larger number of children may be prepared to enter the high school. There is at present a high per capita cost in many high schools. To increase the efficiency of the elementary schools will result in a larger number of children prepared to enter high school; with better trained teachers, better equipment, and better buildings, there is certain to be a much larger per capita expenditure unless the attendance is greatly increased.

In the county elementary schools, there were enrolled for 1924-1925 approximately 25,000 children in the eighth grade, and according to reports of the county superintendents, only about 13,000 of these pupils completed the eighth grade and were ready for the high school. Not all of these go to high school, but since many of the 8,500 completing the eighth grade in the city schools go to the county high schools, the first year enrollment for 1924-1925 was approximately 14,000. The high schools received a larger part of the 8,500 pupils completing the eighth grade in the city elementary schools, and the number entering the high school from the rural elementary schools is not as large as it should be. Out of 22,000 who completed the elementary course approximately 14,000 entered the county high schools. Instead of 22,000 children completing the elementary course there should have been not less than from 35,000 to 40,000, and instead of a first-year enrollment of about 14,000, it should have been not less than 28,000. If provisions were made so that each child in the state would have the full eight months or more of school, and could make a grade a year, it would be but a short time until the high school attendance would more than double the present.

The main justification for a state school fund, it is pointed out, is the fact that there is a variation in the ability of the various units to support their schools. If every county had the same amount of taxable wealth per child, it would not be necessary to have a large state school fund. Some counties would be more willing to support their schools, but it may also be assumed that the people would support the schools in accordance with their means. As a rule, in those counties with a high tax rate, the schools have been poorer than in those counties with a low tax rate. The teachers have not been as well paid, the buildings have been poor, and in most cases, the teachers employed have not had the advantages that the teachers in the counties with a lower rate have enjoyed.

The state school fund for elementary schools has greatly increased. For the year 1925-1926, the state sent to the various counties approximately $500,000 more than was sent in 1924-1925. Instead of thirty odd per cent of the children in the rural districts enjoying an eight-month term or more this year, eighty per cent will have this privilege. With this increased length of term will come a larger number graduating from the elementary schools, who will demand admission to the high schools. With this increased demand on the high schools there must come increased support. It is necessary that the state assist in meeting this increased expenditure, and it is certain that the state high school fund will then be increased.

The Tobacco Tax for Schools

The tobacco tax for schools in Tennessee is a prolific source of revenue for the schools of the state. The man who can afford to smoke can afford to pay a tenth of what he spends for his indulgence for the cause of educating the children of the state. If the present tax is reenacted, and it is predicted it will be if the school people demand it, all will go to the schools.

During the first year the tax was in operation, over $1,200,000 was raised. The schools receive in addition to one-third of this, $250,000. If all of this were to go to the schools, not less than three-quarters of a million dollars would be added to the school fund. The collection for the tax, it is believed, will be larger for the second year than for the first, since there was some delay in putting the law into operation.

THE CLEANING AND RECONDITIONING OF BLACKBOARDS

It is not generally known that the slippery surface often noticed on slate blackboards is just the surface, and not the result of using poor slate. This coating is caused by allowing dirty water to dry on the board after being washed, which causes the surface to become streaked and glossy.

The secret of the care of blackboards lies in proper washing, and particularly, drying. This is not often taken into consideration, and consequently, today a great many boards are in poor condition. Usually no definite system is followed in washing and drying blackboards, and they are often neglected. Naturally, after a number of years the dirt left on the surface becomes shiny, and produces a glare which makes it difficult to see anything written on it. Thus, splendid boards which might have lasted indefinitely are useless, because they were not given the proper care. The reason is simple, lack of system, as well as lack of proper equipment with which to keep them clean.

The *proper equipment* will keep the boards from becoming insanitary as well as unsightly. There has recently been placed on the market a simple outfit which many schools have found decidedly successful and inexpensive.

The method or system of cleaning slate blackboards is simple. The boards should be wiped off with a dry cloth before any water is used. This removes all the loose chalk and dust, and prevents a pasty coating from being formed with the application of the water. If the boards are washed weekly, using this method, they can be kept in splendid condition.

Some boards have been neglected "systematically." The surface grime, caused by certain ingredients necessary as a binder in the manufacture of chalk, makes the boards impossible to use, even after being washed every day. Therefore, it is very important that blackboards be given the proper care, for, if neglected, it will eventually involve the expense of having the surface restored.

During the past few years it has been proved that slate blackboards can be reconditioned and the surface made equal to new boards.

Slate does not disintegrate. It is the accumulation of dirt upon the surface which causes the gray, scaly appearance, and this deposit eventually becomes so hard that it is mistaken for the actual surface of the slate. There are hundreds of schools in the United States and Canada whose boards have been resurfaced and which have given entirely satisfactory service. The work is permanent, if proper care is taken in washing and drying the boards after they have been resurfaced.

The best method of reconditioning blackboards is to sand off the foreign substance by buffing the surface with a high speed abrasive disk, which gets rid of the surface grime and brings out the natural slate color. If boards are cleaned in this manner and given the proper care afterwards, they will be equal to new.

Some people have tried to recondition boards by using liquid dressings. This treatment, however, is a detriment rather than a help, and only adds to the cost of reconditioning. Slate is no suitable blackground for liquid dressings of any kind.

Many other methods have been tried, in the attempt to recondition blackboards—most of them quite expensive and slow in getting results. A recent device on the market not only removes the foreign substance on the surface but restores the natural slate color through the high speed of a buffer.

The work is carried on the year round by practical slate workmen, and can be done after class hours and during vacation. However, so little dust is raised, and the machine works so quietly, that some boards have been resurfaced during class hours without disturbing the children.

PUBLIC EDUCATION IN LOUISIANA

A study covering twenty-five years of public education in Louisiana has been prepared by John M. Foote and issued by State Superintendent T. H. Harris. During this period the teaching staff has been increased from 3,102 to 8,577 and the enrollment from 120,178 to 264,863. The value of the school property has been increased from $2,150.000 to $40,799.000, and the expenditures from $1,180,000 to $20,631,000. 631.000.

Speaking of illiteracy Mr. Foote says: "Illiteracy in Louisiana has decreased 23.9 per cent in thirty years compared with a decrease of 7.3 per cent in the nation. A rate of decrease that is more than three times as rapid as the rate for the nation is cause for gratification. The rate of decrease in the last decade was exceeded by only one state, South Carolina. Assuming a continuance of the rate of decrease, illiteracy in the state will be reduced to a negligible figure during the next ten or fifteen years.

"Segragating the illiteracy of the state between native whites and negroes, the former has decreased from 20.3 per cent in 1890 to 11.4 in 1920, or 8.9 per cent., and the latter has decreased from 72.1 per cent to 38.5 or 33.6 per cent. The reduction of illiteracy in the white population is more than half and in the negro population it is nearly half."

The report shows that the number of white pupils in high school has grown from 7,144 in 1907-08 to 67,086 in 1924-1925. In other words, the enrollment in white high schools has increased about 60,000 in a seventeen-year period, while the last five years of the period have witnessed more than half of the increase.

It is shown that the students attended school more regularly during the school year 1924-1925 than at any other time in the history of high schools in the state. In 1907-08 the percentage of enrollment in average daily attendance was 77.2 per cent, and in 1924-1925 it was 83.1 per cent. This is an increase of about six per cent during the seventeen-year period.

There was a grand total of 706 public high schools during the school year 1924-1925. Of these, 411 were accredited and 295 were not accredited.

The number of graduates has increased from 1,061 in 1915-1916 to 8,248 in 1924-1925. In addition, over 1,200 white pupils were graduated from private schools, 484 colored pupils from private schools, and 380 colored pupils from public high schools, making a grand total of more than 10,000 boys and girls graduated from high school at the close of the scholastic year ending in June, 1925. It is estimated that 15,000 students staged a parade with banners reading: growth in number of high schools, and number of graduates.

COST OF EDUCATION IN 26 CITIES

—The division of research of the Department of Superintendence of the N. E. A., in January, 1926, conducted an investigation into the per pupil costs of education in elementary, junior high school and senior high school. Replies were received from 26 cities. In interpreting the data given in the table, it should be remembered that school accounting procedure is still insufficiently standardized to justify inter-city comparison of per pupil costs with any feeling that the basic figures are scientifically comparable.

The table shows the current expenses per pupil in average daily attendance in elementary, junior high school and senior high school, and the ratio of per pupil costs. For instance, in Baltimore, Md., in 1924-1925, the annual current expense per pupil in average daily attendance was $72.87 in elementary, $82.76 in junior high school, and $135.25 in senior high school. In Denver, Colo., the annual current expense was $83.44 in elementary, $122.03 in junior high school, and $136.21 in senior high school. In Detroit, Mich., the annual current expense was $71.66 in elementary, $104.34 in junior high school, and $123.38 in senior high school. In Kansas City, Mo., the annual current expense was $76.16 in elementary, $102.72 in junior high school, and $132.11 in senior high school. In Philadelphia, the annual current expense was $64.18 in elementary, $116.72 in junior high school, and $164.10 in senior high school. In Pittsburgh, the annual current expense was $101.94 in elementary, $159.56 in junior high school, and $193.25 in senior high school. In St. Louis, the annual current expense was $78.62 in elementary, $141.56 in junior high school, and $162.07 in senior high school.

Of the 26 cities listed, the highest cost in elementary schools was in Montclair, N. J., which had a cost of $125.16, and the lowest was in Somerville, Mass., which had a cost of $52.45. The highest cost for junior high schools was in Montclair, N. J., where the cost was $199.43, and the lowest cost was in Rushville, Ind., which had a cost of $55.35. The highest cost for senior high schools was in Montclair, N. J., which had a cost of $203.42, and the lowest was in Cherryvale, Kans., and Somerville, Mass., which had costs of $90 each. The total average cost for elementary schools was $76.87, that for junior high schools was $111.94, and that for senior high schools $142.49.

Bloomington High School
Bloomington, Illinois
Architect:
A. L. Pillsbury
Plumber:
Ross Johnson

Phil Sheridan School
Chicago, Ill.
Architect:
John A. Christiansen
Plumber:
Murphy Plumbing Company

Gregory School
Chicago, Ill.
Architect:
John A. Christiansen
Plumber:
Murphy Plumbing Company

Austin, Minnesota, High School
Architect:
G. L. Lockhart
Plumber:
J. P. Adamson & Company

Dubuque, Iowa, Junior High School
Number 1
Architect:
Rayer, Danely & Smith
Plumber:
Dooley & Bruininga

Wentworth School
Chicago, Ill.
Architect:
ohn A. Christiansen
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NEWS NOTES FROM MINNEAPOLIS

Through the interest and effort of Dr. Horace Newhart who is one of the consultants to the director of hygiene of the board of education, a survey was made of a cross section of the student body of the Minneapolis public schools to determine the percentage of defective hearing. Results appear so significant that the superintendent of schools has instructed the hygiene department to carry on more extensively the testing of hearing in the schools in September. The present plan provides that every child from the third to ninth grade be tested and where necessary re-tested during the school year 1926-27. Children from the first through the third grades may also be tested later.

A clinic was established to which could be referred for more careful testing and more thorough examination children whose hearing fell below 94 per cent of normal, or children whose ears showed diseased or abnormal conditions. This was primarily a diagnostic clinic and children were referred from this clinic to their own physician, or in case of inability to pay, to the proper free clinics of the city. The figures compiled during the latter part of the school year 1925-26 are by no means conclusive but warrant the expenditure now recommended to make such testing a permanent activity in the hygiene department for the future. It is expected that a great deal of incipient deafness will be discovered and progressive or permanent deafness prevented. In addition to these benefits, it is expected that in certain cases higher scholarship will follow the correction of auditory conditions tending toward a diminution in the hearing index.

The board of education through its hygiene department has carried on a very successful voluntary smallpox vaccination campaign in the schools. There is no compulsory vaccination law in Minnesota. Every unsuccessfully vaccinated child, unless he has suffered from an attack of smallpox, is handed a small printed slip explaining the value of vaccination and its simplicity and asking for the parental consent to have the child vaccinated in school. At the bottom of this slip is a blank space which is to be filled in and signed by the parent, which when so signed gives permission for this vaccination. These slips are gathered up by the hygiene nurse, and, upon each visit of the school physician, which is once in about every ten days, all children presenting such slips are brought to the doctor and are vaccinated.

The result of this campaign was clearly borne out during the outbreak of smallpox in Minneapolis from June, 1924, to June, 1925. There were but 137 cases of smallpox among the seventy odd thousand public school children of Minneapolis. The disease prevailed at the rate of 3.7 per thousand of the general population as against a rate of 1.6 per thousand school children. The death rate from this disease during the period was 30 per cent of those who contracted the disease among the general population, exclusive of school age children, and 1.79 per cent among the school age group which contracted it.

In order to accommodate 2,500 new students expected in September and to do away with at least one half of the present number of part-time pupils, Minneapolis has entered upon an extensive building and remodeling program. Two new junior high schools will be opened in September, the Maria Sanford costing $421,000, and the Wendell Phillips costing $427,000. Each building will accommodate a thousand pupils. The John Burroughs school of sixteen rooms, costing $213,000, takes the place of a ten-room portable and will accommodate 240 additional pupils. A fifteen-room structure to replace the Emerson grade school at a cost of $15,000 will also be ready by September; and the first unit of the Patrick Henry junior high school will be started this summer, but will not be completed until next January.

In addition to these new buildings, alterations and additions are being made to a number of schools. The school board has also purchased two new school sites: The Alexander Graham Bell at a cost of $14,760 and the Alice Freeman Palmer, costing 29,867.

Minneapolis is a bidder for the 1928 Convention of the N. E. A., and Minneapolis delegates were enthusiastic in presenting this fact at the recent meeting of the convention. Instead of loudly proclaiming the ideal accommodations of the city or the beautiful scenery surrounding it, both of which are certainly in abundance, they staged a special side show of their own. They sang songs; and, led by two teachers and the state's tallest delegate, they paraded in flour sacks, which are emblematic of the city's great industry. Their arm bands bore the slogan, "Eventually, Why Not 1928?"

ROCHESTER REVISES COMMITTEES

The school board at Rochester, Minn., has reorganized with Dr. A. H. Sanford as president, Helen P. Judd as vice-president, and Mr. S. L. Seaman as secretary. The organization of the committees of the board has been rearranged as follows:

1. Teachers' committee in charge of the selection of teachers, the establishment of salary schedules, the curriculum, and health, athletics, and special exercises.
2. Finance committee in charge of the budgets, audits, bond issues, insurance, and fuel.
3. Academic supplies committee in charge of the selection of books and the purchasing of furniture, apparatus, and stationery.
4. The maintenance committee, responsible for the operation and maintenance of the school building and grounds, repairs, and the employment of janitors.

Supt. G. H. Sanberg is ex-officio a member of all committees.

—That the maximum salaries of city superintendents of schools for the year 1927 should be $30,000 in the largest cities and a minimum of $4,000 should be paid in the smallest cities, was the substance of a report on salaries by a special committee of the Department of Elementary Principals of the N. E. A., headed by Mr. William A. Roe, principal of the Belmont Avenue School, Newark, N. J. Speaking before the department of Elementary Principals, Mr. Roe declared that the principalship cannot develop properly under the weight of underpaid superintendents nor can the recommendations of such a superintendent receive proper consideration in the hands of successful business men.

—Supt. Joseph E. Gibson of McComb, Miss., has been granted a leave of absence of one year to pursue graduate studies at Teachers College. Mr. D. L. Blackwelder has been appointed as acting superintendent to serve during Mr. Gibson's absence.

—Mr. A. W. Dagley of Norman, Okla., has been elected superintendent of schools to succeed R. L. Clayton.

SCHOOL BOARD NOTES

—Bridgeport, Conn. Supt. Carroll R. Reed has presented a statement to the mayor showing the need of $3,530,000 for school improvements during the next five years. It is estimated that the immediate needs of the schools demand at least $1,030,000 during the next two years. If the building program is adhered to, the schools will need $1,000,000 in 1929 and $1,500,000 in 1931.

—Racine, Wis. School books cost the parents of school children approximately $1.72 per child last year, according to Supt. F. M. Longanecker. This is the average for each child in attendance. Book sales in 1925 amounted to $18,514. Books are sold to school children at cost. By selling the books in the schools, it is possible to have uniform texts and to save the profits charged by bookstores.

—Evansville, Ind. The school board is about to adopt a five-year building program. An increase of five cents in the tax rate is proposed to take care of the building program, and an additional cent or two to cover the bonuses paid to teachers.

—Hamilton, O. The school board has adopted its 1927 budget, calling for an expenditure of $547,589, which is an increase of $54,000 over 1926.

—Kent, O. The school budget for 1927 amounts to $171,978, which is a net increase of $15,581.

—La Salle, Ill. A tax levy of $115,000 for educational purposes has been adopted by the school board. Of this amount, $83,000 will be devoted to educational purposes and the remaining $32,000 to the building fund.

—Fostoria, O. The school budget for 1927 amounts to $136,000.

—Lansing, Mich. An increase of $321,000 in the amount to be apportioned for primary school purposes this year has been announced by State Supt. T. E. Johnson. The money will be raised by taxes on railroads and other public utility corporations. The total collection for this year is $16,216,672 which will be apportioned to the counties.

—Omaha, Neb. The school system will be operated during the next year on the basis of a budget of $4,250,000, which is a general reduction of about ten per cent. It is possible that the year will be closed with a deficit, but an effort will be made to keep the budget within the income available during the year.

A two to three-mill reduction in the tax levy for the year 1926-1927 is proposed. The finance committee has assured an approximate reduction of 2.1 mills, making the levy 97.3, and possible further reductions will be made when the tax data is completed. The board will raise $700,643 by taxation to be applied to the general fund, the schoolhouse fund, and the special fund.

—The school board of Plattsmouth, Neb., has announced a reduction of ten per cent in the operating expenses of the school system for 1926-1927. The levy will be two mills less and will not interfere with the present standard of the schools.

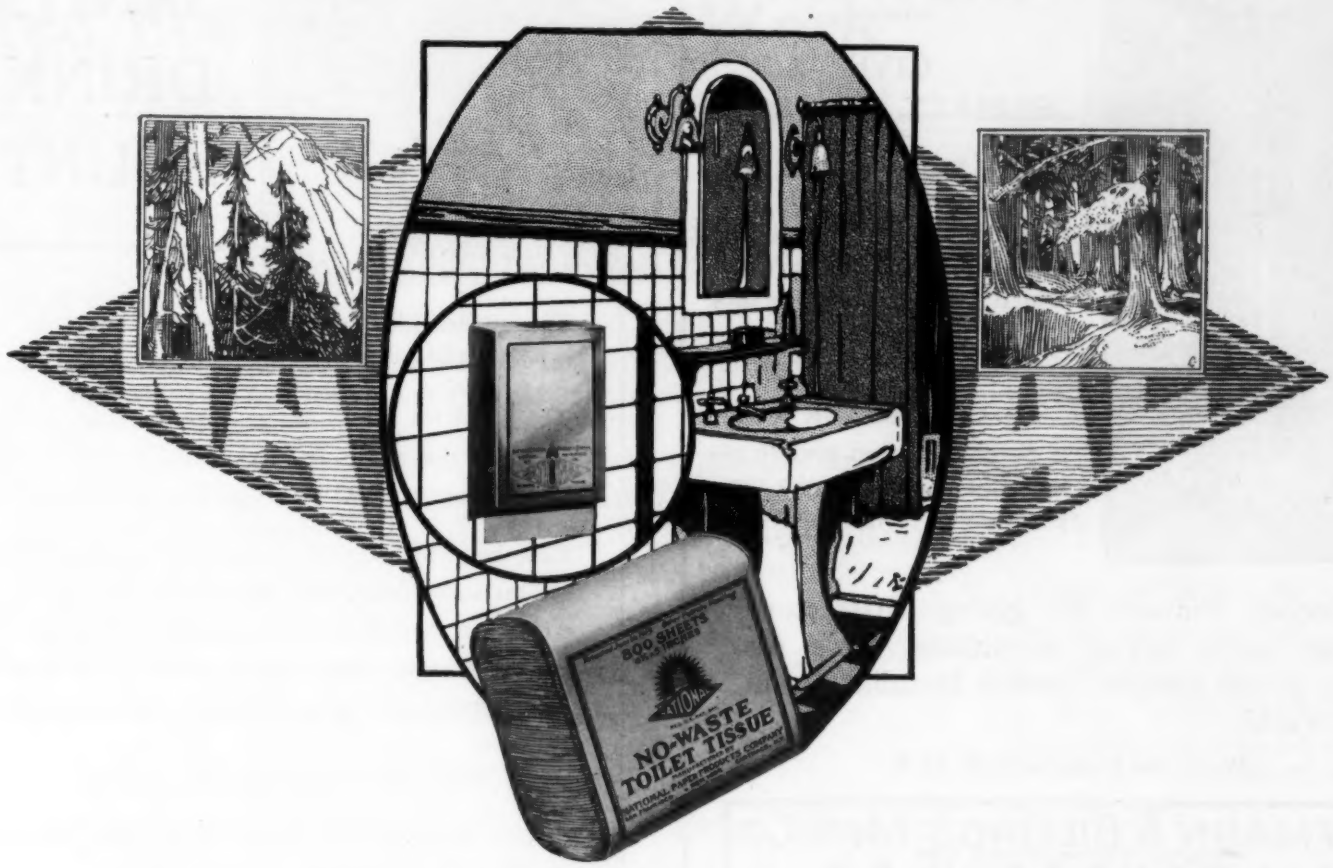
—The school board of Fairbury, Nebr., has adopted a budget of $97,850, which means a decrease of about twenty per cent in the tax levy. A part of the decrease is due to a program of economy on the part of the school officials.

—Dr. Wm. L. Ettinger, former superintendent of schools of New York City, has been elected superintendent-emeritus, at a salary of $12,000 a year. The position was created by law and provides that any person who has been superintendent or assistant superintendent for a period of ten years, is eligible. The duties consist of offering advice to the school officials whenever requested by the superintendent.

—Supt. J. H. Beveridge of Omaha, Nebr., has been reelected as head of the Omaha school system for a term of one year, at his present salary of $10,000.

A HUMAN ANT HILL.

This odd picture gives one the impression of being a great ant hill, with hundreds of ants scurrying over the ground. But it is really a snapshot of a bunch of school children hurrying to their classes over the playground of Public School 4, in the Bronx, New York, when the school bell rang for the end of the recreation hour. (International Photo.)



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THE COLORADO JANITORS' SCHOOL

(Continued from Page 66)

An interesting development at the opening of the school this year was the finding of an intelligence test. The Army Alpha test was used in rating and scoring the intelligence of the men, and as a result, it was indicated that the school janitor stands well above skilled labor. Instructors in the school include:

James Ball, chief engineer, Denver public schools; R. G. Dempsey, superintendent of buildings and grounds, Colorado State Teachers' College; J. Fleikeid, instructor school for janitors, Minneapolis, Minnesota; Guy C. Gamble, school building expert, Colorado State Teachers' College; Harry S. Ganders, professor of school administration, Colorado State Teachers' College; J. D. Heilman, professor of psychology, Colorado State Teachers' College; E. S. Knowles, M. D., medical advisor, Colorado State Teachers' College, and member of the Board of Health, Greeley, Colo.; Robert H. Morrison, director placement bureau, Colorado State Teachers' College; W. S. Rathbun, fire prevention engineer, Mountain States Inspection Bureau, Denver, Colorado; C. E. Reeves, scientific investigator of janitor service, Elmira, N. Y.; Charles Stevens, head janitor, Greeley high school, Greeley, Colorado; Felix Strickland, head janitor, Pueblo, Colorado; Harry S. Ganders, in charge of the school.

Arguments in favor of such a course were presented as follows:

A—Arguments for the Board

a. Many janitors do not have an adequate notion of what their job implies.

b. Among janitors of approximately the same degree of willingness to serve, some render an efficient service while others are near failures.

c. Right training will improve the methods of your inefficient, willing janitor. Contacts with other competent janitors and opportunities to visit such janitors in their own schools where a high class service is being rendered should certainly inspire your careless janitor to more efficient service.

d. Ideals of better service will be emphasized.

e. How to economize time and effort and at the same time improve the quality of work will be demonstrated.

f. Your janitor will see the best method yet developed for washing blackboards, scrubbing floors, repairing certain fixtures, etc.

g. Your janitor will be taken to the furnace room and there shown how to put the coal in the firebox, how to regulate drafts, etc., so that he may annually save to your community at least the amount of his salary.

h. Sweeping compounds, brooms, brushes, oils, and other janitorial supplies will be exhibited at the school. Instructors will show how and under what conditions to use various materials and tools.

i. Moving pictures will depict methods of firing, cleaning, etc.

j. Your janitors will visit school buildings in operation that are being cared for as you would like your janitors to care for your buildings.

B—Arguments for the Janitors

a. You will see how other janitors do their jobs.

b. Janitors from all parts of the country will be telling how they do various jobs.

c. You will be shown easier and better ways of doing things.

d. Your job ought to become easier because of improved methods.

e. You will receive a diploma showing that you have attended a school where your problems have been intelligently studied.

f. You will be in a position to render a more efficient service.

g. You do not need to be away from home on a week-end.

h. There will be moving pictures of how others are doing their work.

i. A tourist camp will be made free to you if you want to drive in your own car.

j. You will enjoy going to school again. You will be guests of the Colorado State Teachers' College. There'll be horse-shoe tournaments, a picnic, and free tickets to Greeley theaters.

k. Business men have conventions, farmers have institutes, teachers have summer schools, WHY NOT A WEEK'S CONVENTION FOR JANITOR-ENGINEERS?

The course of study as carried out was:

Monday, June 7th

Frequency of Time of Cleaning (Lecture).....Reeves
Cooperation of Staff—Keys—Cleaning Blackboards and Erasers—Sweeping Building (Demonstration).....Fleikeid
Sweeping and Dusting (Demonstration).....Reeves
Cleaning Toilets (Demonstration).....Fleikeid
Cleaning Blackboards and Erasers (Demonstration).....Reeves
Cleaning Blackboards and Erasers (Demonstration).....Ganders

Tuesday, June 8th

The Typical Janitor.....Ganders
Dusting and Washing Walls, Ceilings, etc.,

EXPERT POINTING OUT CERTAIN SOIL CONDITIONS AND THEIR EFFECTS ON THE LAWNS, COLORADO JANITORS' SCHOOL.

Lamps, Shades	Fleikeid
Miscellaneous Jobs	Stevens
Miscellaneous Jobs	Strickland
Health and the Janitor	Knowles
Reasons for Care of Grounds	Dempsey
Sowing and Care of Lawns	Fleikeid
Planting and Caring for Shrubs and Trees	Dempsey
Sowing and Care of Lawns (Demonstration)	Fleikeid
Planting and Caring for Shrubs and Trees (Demonstration)	Dempsey
Wednesday, June 9th—Visiting Day	
Thursday, June 10th	
Cleaning and Preserving Floors (Demonstration and Discussion)	Fleikeid
Effects of Janitor Service on Learning	Heilman
"Standards"	Gamble
"Fire Prevention"	Captain Wm. L. Martin
Movie "Control of Heat"	Ganders
Fuels and Firing (Lecture)	Fleikeid
Firing and Boilers (Demonstration)	Fleikeid
Types of Ventilation, Advantages, Operation	Gamble
Friday, June 11th	
Electrical Fixtures	Dempsey
Electrical Fixtures	Strickland
Motors and Engines	Fleikeid
Plumbing	Brickey
Test	Ganders
Demonstration of Scrubbing Machine	Dempsey
Saturday, June 12th	
Care of Janitor Supplies and Equipment	Fleikeid
The Cleaning of Glass	Fleikeid
Records, Fire Drill, Flag, Supv. of Children	Ganders
The Janitor and the Community	Morrison

SCHOOL BOARD NEWS NOTES

—The campaign in New York to rid the state of diphtheria by 1930 is being carried on in 53 of the 57 cities in the state of more than 10,000 population; the medical societies of forty counties have endorsed the campaign and local committees in every county are cooperating. It is reported that the city of Auburn has not had a death from diphtheria in more than two years, as a result of intensive immunization work. In Yonkers, 3,413 children in the schools have been immunized by the city health department in addition to those who have been immunized by family physicians.

—Mr. L. B. Stephan of Jenkins, Ky., has been appointed director of the teacher training school of Western Kentucky Teachers' College at Bowling Green. Mr. Stephan is succeeded by Mr. J. G. Long, formerly principal of the high school at Jenkins.

—Supt. B. J. Brophy of Gas City, Ind., has been reelected and given a five-year contract.

—Supt. S. Howard Chase of Beverly, Mass., has been given an increase in salary from $4,600 to $5,000.

—Supt. W. S. Goudy of Durand, Mich., has been reelected for another year.

—Miss Mamie B. Lang, state commissioner of elementary schools of California, died suddenly in the Fabiola Hospital, Oakland, Calif., on July 5th, following a brief illness. Miss Lang was appointed commissioner of the elementary schools of California a year ago. She was formerly superintendent of the Tehama county schools and had a long teaching record. She was a graduate of the Chico Normal School.

—Bridgeport, Conn. The school board has voted not to extend the term of the business manager from three to five years. Manager Wynkoop still has two years of his present term to serve.

—Indianapolis, Ind. The school board failed to approve a resolution that the Bible be used in opening exercises in the public schools. The motion failed after a vigorous argument among the members, three of whom indicated their disapproval.

JOHN ENRIGHT.
Formerly Commissioner of Education for New Jersey.
Died July 16, 1926.

—Topeka, Kans. The school board has awarded the contract for the fuel for the 1927 season to the Albert Silk Coal Company. The bid was $5.74 for Southern Kansas deep mined nut coal and $7.79 for mine run semi-anthracite. About 2,288 tons will be used by the schools.

—Wichita, Kans. The school board plans the erection of an administration building in the downtown section of the city. A special committee has been appointed to select sites for consideration by the board.

—Westport, Conn. The amount of insurance carried on school buildings has been increased 450 per cent within the past two years. A jump from $80,000, the total insurance carried two years ago, to $360,000 for schools of the present, will be necessary. The board recommends a 500 per cent increase in the amount of premium, or an appropriation of $2,600 to pay premiums estimated to aggregate $2,570. The insurance policies are distributed among six local agents in such a manner that the premium falling due is the same each year.

Cheboygan, Mich. The school board has purchased the local armory building for school use. The building will be remodeled and part of it used as a gymnasium.

JOHN ENRIGHT PASSES

—Mr. John Enright, former state commissioner of education of New Jersey, died suddenly of heart disease on July 16th, at Asbury Park, N. J., where he had gone to give an address.

Mr. Enright was born in New Jersey in 1852 and received his education in the public schools and in the Trenton normal school. He began his career as a teacher in southern New Jersey, and later became superintendent of Monmouth County schools, a position he held for 21 years. He served six years as assistant commissioner of education of New Jersey, and he organized and served as secretary of the New Jersey Teachers' Pension Fund. He received the interim appointment as Commissioner in 1921 and later was appointed for a full term of five years.

Mr. Enright is survived by his widow, Mrs. Anna Enright, and four children.

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Legal Provisions for and Custody of Public Funds for Secondary Schools

(Continued from Page 67)

school income.[6] Contracts entered into by public school boards, for teachers' services, in excess of the year's income are void.[7]

Other Expenses of Instruction (Supplies)

The statutes of several states prohibit any member of a public secondary school board[8] or a teacher[9] in a public secondary school from being financially interested in any contract for instructional supplies for the school. Almost one-half of the states require that the public secondary school boards award orders for instructional supplies, of more than a stipulated amount, to the lowest bidder after advertising for bids;[10] and also that such indebtedness shall not exceed the year's income.[11]

The same regulations as to use of the budget system apply to expenditures for instructional supplies, as were mentioned relative to teachers' salaries.[12]

Library (Including Textbooks)

Twenty-seven state legislatures have enacted laws that require textbooks which are to be used in public secondary schools to be selected from lists approved by state educational authorities.[13] The Supreme Court of South Carolina upheld the statutory power of the state board of education to select textbooks for use in the public schools of the state, and to contract with certain publishers to furnish textbooks to the public schools at stipulated prices.[14] Twenty-two states give statutory power to state school authorities to control prices at which textbooks must be sold within the state.[15] Justice Farmer of the Illinois Supreme Court stated definitely that the state had such power to control prices of textbooks within the state in a 1911 decision: "The state has the undoubted right to regulate the adoption and price of textbooks used in the public schools."[16]

After textbooks are adopted, they shall not be changed for a stated period (usually five years), according to the statutes of 23 states.[17] The constitutionality of such a statute has been upheld by the Texas Supreme Court in recent decisions.[18] Such statutes are:

"Enacted, not for the protection of book dealers, but for the protection of the public. The mere requirement of the law that books, when adopted, shall not be changed for a given time, and the resolution for the purchase of complainants . . . (textbooks) . . . to take the place of those then in use, did not constitute a binding contract between complainant and defendant."[19]

Many of the states have constitutional or statutory provisions prohibiting the purchase or use of sectarian or partisan textbooks in public secondary schools and excluding the same from the public schools and public school libraries.[20] The statutes of Kansas stipulate that certain textbooks or their equivalents are to be used in the public secondary schools.[21] Such a statute was declared to be void and constitutional by the Tennessee Supreme Court in an early decision of 1899.[22]

Operation and Maintenance of Plant

Under this classification are segregated expenditures as follows:

a. Wages of janitors, engineers, gardeners, etc.
b. Fuel, water, light and power.
c. Janitors' supplies.
d. Care of grounds.
e. Miscellaneous expenses of operation.

The statutes of most of the states contain little or no specific mention of authorization or restrictions relative to the expenditures for the operation and maintenance of school plants. Apparently the power to make such expenditures is implied in the general powers granted to establish and maintain the public secondary schools.

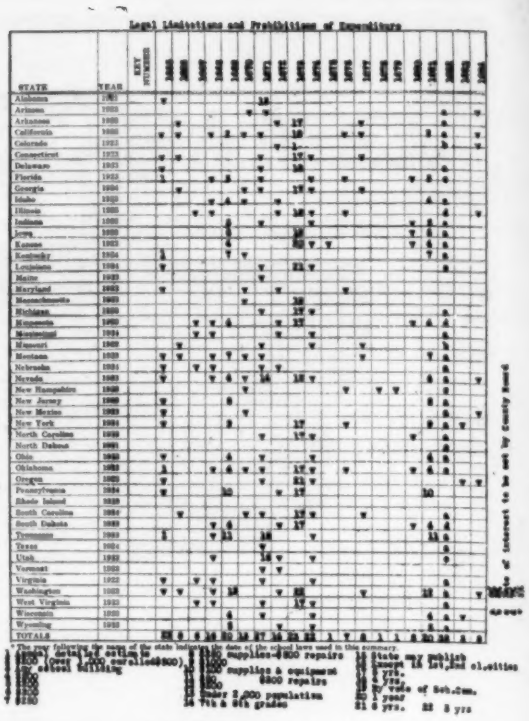
New Hampshire sets a limit of five per cent of total expenditures for public schools as the maximum amount that may be expended for the operation and maintenance of school plants.[23] Eight states provide by statutes that public secondary school boards shall not incur expenditures in excess of the assured income for the current year.[24] The usual regulations relative to the use of the budget system apply to expenditures for the operation and maintenance of the school plant.[25] Also the prohibitions against members of school boards or teachers in public schools being financially interested in contracts for public secondary school purposes apply to expenditures for operation and maintenance of school plants.[1]

Eight states have statutory requirements that contracts involving expenditures exceeding a stipulated amount (usually $200) be in writing.[2] Also such contracts must be awarded to the lowest bidder after advertising for bids, according to the statutes of twenty states.[3]

KEY CHART, PART 1.

[21]Section 711, Chapter XXXVI, Revised School Laws of Kansas, 1923, p. 197.
[22]Leeper v. State (1899), 103 Tenn. 500, 516, 517, 537.
[23]Section 3, Part II, Laws of New Hampshire Relating to Public Schools, 1923, p. 24.
[24]See key number 1677, Summary Chart.
[25]See key numbers 1646, 1665, Summary Chart.
[1]See key numbers 1668, 1667, Summary Chart.
[2]See key number 1680, Summary Chart.
[3]See key number 1681, Summary Chart.

[6]See key number 1677, Summary Chart. The statutes prohibiting expenditures in excess of the year's income apply to all forms of expenditure.
[7]Charles Morley v. C. Powers, et al. (1882), 78 Tenn. 218, 219, 227, 228; Clara Wolfe, App. v. School Dist. No. 2 Resp. (1910), 58 Wash. 212-214, 108 P. 442, 27 L. N. S. 891; Lacey, et al. v. Bd. of Ed. of School Dist. A, City of Anadarko (1924), 98 Okla. 239, 224 Pac. 712, 713; Campe v. Bd. of Ed. of Loudon Dist., et al. (1924), 121 S.E. 735, 736, 95 W. Va. 536.
[8]See key number 1668, Summary Chart.
[9]See key number 1667, Summary Chart.
[10]See key number 1669, Summary Chart, for amounts.
[11]See key number 1666, Summary Chart.
[12]See key numbers 1646, 1665, 1701, Summary Chart.
[13]See key number 1671, Summary Chart.
[14]Owens v. Heyward, Governor, et al., Duncan v. Same, (1907), 78 S. C. 227, 58 S. E. 1095, 1099.
[15]See key number 1674, Summary Chart.
[16]Pozen v. Rand, McNally & Co., et al. (1911), 250 Ill. 561, 95 N. E. 623-625.
[17]See key number 1673, Summary Chart.
[18]Charles Scribner's Sons v. Marrs, State Supt. of Public Instruction (1924) (Texas Supreme Court), 262 S. W. 722, 726; American Book Co. v. Marrs, St. Supt. of Public Instr. (1924) (Texas Supreme Court), 262 S. W. 730, 731.
[19]Attorney Gen., ex rel, Marr v. Bd. of Ed. of Detroit (D. C. Heath & Co., Complainant) (1903), 133 Mich. 681, 686, 687, 95 N. W. 746.
[20]See key numbers 1670 and 1676, Summary Chart.



KEY CHART, PART 2.

Fixed Charges

The statutes of 28 states designate a maximum rate of interest that may be paid legally by public secondary school districts on school bonds.[4] A few states specifically authorize the leasing of buildings and grounds for public secondary school purposes.[5] The statutes of eight states place limitations upon expenditures by requiring interest to be paid on outstanding liabilities.[6]

Key Code

Legal Limitations and Prohibitions of Expenditure

General Control

Key Number	Provision
1645	The statutes of certain states prohibit the payment of members of local public secondary school boards for their services (8).*
1646	In certain states the making of a budget of expenditures for the secondary schools is optional with the local school board (2).*

*The figures in parenthesis indicate the number of states having this provision.

1647 No employee of a public secondary school board shall be entitled to receive payment for services unless all records and reports have been properly submitted (1).*

Teachers' Salaries

1648 The statutes of certain states prohibit the employment of near relatives as teachers (4).*
1649 The statutes of certain states provide that special aid shall be spent only for teachers' salaries or other specified purposes (22).*
1650 A minimum salary scale for teachers or similar provision is included in the statutes of certain states (12).*
1651 Certain states prohibit by statute the employment of teachers who are not citizens of the United States or have not signified their intentions by applications for first papers (5).*
1652 The statutes of certain states limit the payment of salaries to public school educators who have complied with all school regulations including furnishing of final reports (6).*
1653 Public secondary school funds shall be expended only for teaching services of those who hold teachers' certificates in full force and effect (10).*
1654 The statutes of certain states provide that no member of the local school board may be employed as a teacher (1).*
1655 The statutes of certain states provide that contracts for teachers' services must be in writing (16).*
1656 The statutes of certain states prohibit the employment of teachers who do not have the qualifications prescribed by the state education department (48).*
1657 The statutes of certain states provide that the local salary schedules of secondary school districts be approved by the state education department (3).*
1658 The statutes of certain states prescribe a definite salary schedule which local school boards must pay, as a minimum, to secondary school teachers (5).*
1659 The statutes of certain states stipulate that no discrimination shall be made in teachers' salaries because of sex (4).*
1660 In employing teachers the local secondary school boards are prohibited from administering any religious or political tests according to the constitutions and statutes of certain states (7).*
1661 The statutes of certain states prohibit the employment of teachers in public secondary schools who wear any religious or sectarian garb (1).*
1662 The constitutions and statutes of certain states prohibit the expenditure of public school funds for any type of sectarian instruction (see religion) (20).*
1663 The statutes of certain states prohibit expenditures of public secondary school funds for specified instructional purposes of more than a stipulated maximum (5).*

Other Expenses of Instruction (Supplies, etc.)

[4]See key number 1682, Summary Chart.
[5]See key number 1683, Summary Chart.
[6]See key number 1684, Summary Chart.

(Continued on Page 140)

1664 The statutes of certain states require that all contracts for instructional supplies in lots exceeding $200 in value must be in writing (8).*

1665 In certain states local public secondary school boards are required by statute to budget the expenditures for instructional supplies necessary for the ensuing year (22).*

1666 The statutes of certain states prohibit the local secondary school board from incurring indebtedness in excess of income for any given year (8).*

1667 The statutes of certain states prohibit public secondary school teachers from being financially interested in any contract for instructional supplies for the school (6).*

1668 The statutes of certain states provide that a member of a secondary school board shall not be financially interested in any contract for school instructional supplies for the school district (16).*

1669 In certain states the statutes require that the public secondary school board shall award orders for instructional supplies of more than a stipulated amount to the lowest bidder after advertising for bids (20).*

Library (Including Textbooks)

1670 The statutes of certain states require that books, publications, or papers of a sectarian, partisan, or denominational character be excluded from public schools and public school libraries (13).*

1671 Textbooks used in public secondary schools must be selected from lists approved by state educational authorities according to the statutes of certain states (27).*

1672 Local school authorities are guaranteed freedom in textbook selection for public secondary schools in certain states (14).*

1673 The statutes of certain states provide that when textbooks are adopted for use in public secondary schools they shall not be changed for a stated period (23).*

1674 The statutes of certain states provide for control by state school authorities of prices at which textbooks must be sold to secondary school students (22).*

1675 In certain states it is required that certain specified books or their equivalents be used in the public secondary schools (1).*

1676 The constitutions or statutes of certain states prohibit the purchase or use of sectarian or partisan textbooks in public secondary schools (7).*

Operation of Plant

1677 The statutes of certain states prohibit the incurring of indebtedness in excess of the assured income of the current school year (8).*

1678 The statutes of certain states prohibit expenditures for the operation of a school plant above a specified maximum (1).*

Maintenance of Plant

1679 The statutes of certain states prohibit expenditures for maintenance of a school plant above a specified maximum (1).*

1680 The statutes of certain states require that maintenance contracts involving costs in excess of a stipulated amount be in writing (8).*

1681 In certain states the statutes require that contracts for maintenance that exceed a stipulated amount be awarded to the lowest bidder after advertising for bids (20).*

Fixed Charges

1682 The statutes of certain states prescribe the maximum rate of interest that may legally be paid by public secondary school districts on school bonds (38).*

1683 In certain states the provision is included in the statutes that the local school board may be authorized to lease school property by the vote of the people (3).*

1684 If there are no public school funds available to pay warrants when presented, the warrants draw interest until paid, according to the statutes of certain states (8).*

(To be concluded.)

ARCHITECTURAL ACOUSTICS AS APPLIED TO AUDITORIUMS

(Concluded from Page 70)

acceptable for the rendition of anything in which artistic quality is a prime requisite, and for this purpose unassisted auditoriums will for a long time, perhaps, always, be the rule.

Generally speaking, a theatre must be moderate in size, while an auditorium for musical numbers, such as orchestral or choral performances, may be much larger. Such performances usually include several vocal solo numbers and this rather limits the size of the room.

Experience with existing auditoriums leads to an empirical rule connecting the volume of the room with the maximum number of orchestral instruments suitable. This rule is expressed in Table 5. No distinction is here made between wind and string instruments, which are supposed to be present in balanced quantity.

In case the orchestra is reinforced by the organ due allowance must be made. The new music room at the Library of Congress is a case in point. Its volume is about 100,000 cubic feet. At the opening concert there was present an orchestra of 26 pieces, which, with the organ, produced an excessive reverberation perceptibly spoiling the effect of sudden pauses after a loud chord. The indicated limit for this room is perhaps twelve or fifteen pieces with the organ.

As to interior finish, this should be planned with both echo and reverberation in mind. A liberal use of coffering on ceiling and sloping upper walls should effectually prevent echo from this source, and the interior finish should be calculated to give a reverberation time as indicated by the average range in Table 1, using panels of absorbing material in such quantity as may be necessary to reduce the reverberation time to a suitable value. Such materials, of several kinds, are now available commercially.

TABLE 5

Volume of room	Number of instruments
50,000	10
100,000	20
200,000	30
500,000	60
800,000	90

TEACHERS AND ADMINISTRATION

—The rule that in the appointments of teachers the initiative should be in the hands of the superintendent is questioned by members of the Indianapolis, Indiana, school board. The chairman of the instruction committee is reported in the public press to have said: "The instruction committee hardly seems necessary, for its recommendations have been getting no consideration. As chairman of the committee, I refuse to be used as a rubber stamp, and if the committee is not needed, why not do away with it?"

Thereupon the Indianapolis Star said: "The issue is not one between the present members of the school board and Superintendent E. U. Graff. The executive head of the teaching division should be more intimately acquainted with the professional ability of principals and teachers than members of the school board, whose information usually would be based on personal acquaintanceship or on reports of friends or neighborhood organizations, where favoritism or prejudice might enter.

"The newer members of the school board could not hope to familiarize themselves with the professional capacity of individual teachers.

"In the educational field the word of the superintendent ordinarily should be accepted and to that extent approval by the board should be largely a formality."

AN EXPERIMENT IN THE USE OF TABLES AND CHAIRS

(Concluded from Page 50)

in rear of the pupils, very convenient. It is easier to see all pupils, and discipline is not difficult.

Some of the advantages are real aids in making the day's work profitable. Each student has a much larger surface upon which to work. This proves a special advantage in penmanship, drawing, and in the use of reference material. Teachers report that there is a greater tendency for pupils to rest their arms or books on the edge of the table and assume a correct reading position, at the same time getting the right distance for comfort by moving the chair. The fact that students can adjust themselves to the best studying and resting positions must account for the fact that there is less restlessness and fatigue. In discussing this point, teachers were surprised when they could not remember a single case of drowsiness.

Pupils can stand where they are or move to and from their place of work very easily. When necessary for material to be used in common by two pupils, they are in position to do so conveniently.

The tables are heavy and solid, keeping them free from movement and vibration. Students are sure of a still surface upon which to work. These same features will make repairs few and simple. Tables are easily moved, however, to permit the use of any room for special purposes. The janitor's work of sweeping and mopping is easier and better done than with any other type of seating, with which we have had experience. Floors remain uninjured.

Of course, there is the advantage common to all movable seats. You do not need to keep a surplus of furniture in each room, since it can be quickly placed when needed, allowing a minimum outlay for furniture. Seating is easily installed and moved as enrollment increases or decreases in each room.

We are not convinced that this is an ideal type of seating, but the experiment has made us aware of the fact that proper school seating has not received the attention it deserves, and there is no scientific basis upon which to explain the construction of much seating which we are now using. Teachers in rooms equipped with the kind, described in this experiment, recognize both its faults and advantages, but are not willing to return to the traditional type of seats.

FISCAL STATEMENTS SHOWING INDEBTEDNESS

(Continued from Page 55)

Statements of Temporary Loans

Temporary loans are usually made in anticipation of taxes, or other revenue. With a well-planned budget and an adequately controlled income program,[4] the amount of temporary loans become a minimum. The current policies of the school board in this regard can be compared with those of previous years if the essential facts concerning short time loans are set forth clearly. Since borrowed money in this form has been expended for current needs, loans outstanding appear as liabilities in the balance sheet, and additional supporting statements showing clearly the details are necessary. The following statement might well serve this purpose, the schedule heading to read thus: *"Temporary Loans Issued During the Year and Outstanding as at (date)."* The vertical columns should include a tabulation for all notes, and interest-bearing warrants issued during the year, as well as those outstanding from previous years.

[4]Engelhardt, Fred: Accounting Control of the Income Needs, September, 1925, American School Board Journal.

Item	Fiscal Year ending in 19-	19-	19-	19-	19-	19-
Total Outstanding Bonded Debt						
Total Outstanding Temporary Loans						
Total Current Expenditures						
Total Property Value (Cost)						
Bonded Debt Ratio						
Current Funded Debt Cost Ratio						
Current Funded Interest Cost Ratio						
Current Funded Interest Cost Ratio						
Temporary Loan Ratio						
Temporary Loan Cost Ratio						
Temporary Loan and Reserve Ratio						

DIAGRAM 3.

The horizontal columns should contain the following information:

1. Purpose of loan and Authorization. (Minute-book resolution.)
2. Date of Issue.
3. Interest Rate.
4. Date of Maturity.
5. Date of Payment.
6. Interest Payments During Year.
7. Interest Accrued Not Payable at Close of Fiscal Period.
8. Total Interest Paid and Accrued.
9. Amount Outstanding at Close of Year.

Important Temporary Loan Ratios

State laws may also limit the school authorities in the amount of current borrowing, and fix the period during which such loans must be paid. To give adequate publicity to these facts and to keep the executive authorities informed the following ratios are an important help:

The Sum of Amounts Borrowed X Time in Months

Temporary Loan Ratio = ——————————————— 12 X Current Expenditures.

Temporary Loans

Cost Ratio = Total Annual Interest Payments

Current Expenditures

Temporary Loans and Reserve Ratio = Average Monthly Loans Outstanding

Average Monthly Cash Balance

Where legal limitation is fixed by law on the taxable valuation, this ratio should be calculated. It is true that in different organizations other ratios peculiar to the local plan of financing will be of real value to the management. Even in municipalities where the accounting control is centralized in the city offices, such facts are essential to the school officials.

CARING FOR EQUIPMENT

(Concluded from Page 56)

one person has as much right to the use of this property as another.

Mrs. Jones' request is granted. And it is not long until a similar request is made by someone else. So before another term begins, half if not more of the books of the library are "scattered to the four winds of the earth," as it were. Hundreds of dollars are expended yearly for school libraries, from which the individual pupil realizes comparatively little value.

Often carelessness is shown in the matter of keeping the building closed during the vacation. It is not an uncommon sight to pass schoolhouses during the summer months where the door is not only unlocked but where it is actually standing wide open. This fact will seem very deplorable to one who considers that hundreds of dollars' worth of equipment is thus exposed to anyone who might be constrained to destroy or steal it.

The law in most states contemplates a monthly examination of the school property by the board of directors, prior to paying the teacher. In some states, in fact, the board is required to sign a certificate to the effect that the property has been cared for. This certificate appears on the back of each schedule and one schedule is required by law each month. In a nine months' term this certificate must be signed no less than nine times. This appears a little strange to one who knows that in the majority of instances not one examination of the school property has been made throughout the term.

No intentional wrong is committeed. But it is a matter of flagrant neglect, a neglect which costs every taxpayer in the district his part to repair and replace injured and destroyed public property.

There are remedies for these ills if we will only apply them.

In the first place, if the books in the school library are to be used during the vacation, the board should appoint some one to act as librarian and to keep a careful eye on every volume. Each applicant for a book should be required to "sign" for it and a generous time limit should be set for the use of each book. An enthusiastic librarian can do much to promote reading and adult education.

It goes without saying that the door to the school building should be kept locked and windows, etc., kept closed and locked.

It will not take long at the close of each month to make an examination of the school property. The teacher may be held responsible for any property damaged or destroyed, if it is evident that it occurred as a result of failure upon her part to do her duty.

Boards need have no fear of becoming unpopular with the teaching force by enforcing a rigid watch over equipment.

Every real teacher appreciates the opportunity of working in a building blest with good equipment. Furthermore, a friendship is hardly worth having that vanishes when one dares to perform a simple duty.

—Abington, Pa. A new salary schedule recently adopted, will become effective in September next. Under the schedule, the range of salaries is from $1,200 to $2,000 in elementary grades, with yearly increments of $100, and maximums of $1,600 and $1,800.

In order to advance beyond $1,600, a teacher must have a rating of high and must show six semester hours of approved professional work after initial appointment. To advance beyond $1,800, it is required that a teacher have a rating of superior, and that she present evidence of twelve additional semester hours of approved training.

A special class schedule for teachers of backward children provides $300 in advance of the schedule at each step.

The high school teachers' schedule ranges $100, with the exception of the supervising principals of elementary schools. Teachers receiving the maximum salaries of their classes will receive an added $100 beginning September first. Teachers in elementary and junior high schools will similarly be increased $100 on January first, and on September first.

—A new salary schedule has been adopted at Princeton, Ky. Under the schedule, elementary teachers, with one year's college training, will receive $80 per month; those with one and one-half years' college work will receive $85 per month, and those with two years' work $90 per month.

BOOK REVIEWS

The American Twins of 1812

By Lucy Fitch Perkins. Cloth, 195 pages. School edition, 88 cents. Houghton-Mifflin Co., Boston.

The adventures of Jonathan and Phoebe—particularly the former—during the war of 1812, make up the subject matter of this timely book. "Jon" is a bound boy on the farm of a selfish Pennsylvania farmer, and is thrilled by news of the war against England. He runs away to sea with an Irish sailor, is captured by the British, and witnesses the historic defeat of the Guerriere by the Constitution. Later he returns to Pennsylvania where his sister is in the service of a member of Congress and the two are made happy by his appointment as a midshipman. The story is told simply and naturally, and contains more than one thrill in the descriptions of sea battles and pursuits and the gallant conduct of American sailors and commanders. In interest and natural continuity of story, it is quite above the high average of the earlier "twin" books.

The appearance of the book at this time, when the school children of the nation are raising funds to rehabilitate the historic frigate "Constitution" adds to the value of the book.

Everyday Doings at Home

By Emma Serl. Cloth bound, 128 pages, illustrated. Published by Silver, Burdett & Company, New York.

The author in this silent reader tells about a family of squirrels. There is Father Squirrel and Mother Squirrel, and all the little tots, their duties, their pastimes, and their social obligations.

Through a series of illustrations and a text that is bound to fascinate the child fancy, the lesson of courtesy is emphasized. The author inculcates good manners at home, at school, and in visiting friends. The polite little Squirrels are raised to attend to the several duties of the home and to respect authority.

Eleven pages are devoted to silent reading exercises which aim to test comprehension. The illustrations by Harry E. Wood are well done.

Days, Months, and Seasons
Animal, Vegetable and Mineral Kingdoms
Animal Sounds and Noises: What They Say and How They Move
Who Am I?

By Lena C. Albinger. Ideal School Supply Co., Chicago, Ill.

This material is intended as silent reading and seat work for between-recitation periods. The first package is used in the third and fourth grades as drill in the days of the week, months of the year, seasons, and in calendar building. The second package is used as nature study for third and fourth grades, the third package as a study of animal life, and the last is a series of 48 nature riddles on subjects of interest to second and third grade pupils. Attractive and instructive illustrations aid in solving the riddles and in giving pupils lasting impressions of the things described.

After Testing, What?

By Hobart M. Corning. Cloth, 224 pages. Price, $1.60. Published by Scott, Foresmen & Co., Chicago, Ill.

The question which forms the title of this book is appropriate. How can the expenditure of thousands of dollars for testing and test materials be justified, unless means are found and utilized to put the results into effective use? Why waste the time of teachers and children unless instructional results are achieved that prove the economy of the entire idea?

The present book is one superintendent's answer to the question, "After Testing—What?" It is in brief a description of the use of standard intelligence and achievement tests and of a three track, or three speed, plan of reorganization by which the results of the tests have been turned into educational efficiency and economy. The idea worked out by the author contemplates not only the classification of children into three great groups of fast, medium, and slow, but it also requires the modification of the material offered to each of the groups and some changes in the methods of instruction. The slow children are taught essentials only; the fast receive instruction of a decidedly enriched type, while the average are to receive a medium amount and quality of material adapted to their ability. That the idea has worked may be judged by these statements: Retardation is practically eliminated. The work is so arranged that all children who are regular in attendance and who are reasonably industrious can be promoted. No children are now held back because they cannot do the required work." Under the old organization 12.6 per cent of the upper grade pupils failed, the present failures are 1.7 per cent.

It would be interesting to learn whether the severely simplified curriculum for the slow children does not omit some essentials that may be considered necessary, and to determine the ultimate value of the enrichment for the very bright children as against greater speed through the use of the curriculum now used by the average children. Probably these questions can be answered in a year or two when the experiment has been farther demonstrated under varying conditions and further refinements in the "three track" idea have been worked out.

State Support for Public Schools

By Paul R. Mort. Cloth bound, 104 pages. Published by Teachers College, Columbia University, New York City.

This is the first of a series of books to be published on the subject of school finance. The present volume deals with the subject of state school support. It discusses the equalization of educational opportunity and then defines educational undertakings that can be included in minimum programs.

The author gives attention to the division of support between state and locality, and points out the discrepancies that arise in the poorer districts as against the better situated districts. He explains the New York equalization law, the Maryland law, the Morrison plan for North Carolina, and the Singleton plan for Georgia.

Part two of the book concerns itself with the techniques involved in the development of a satisfactory system of state support for public schools.

Studies in Vocational Information

By William G. Bate and Eliza Ann Wilson. Cloth, 168 pages. Price, $1.20. Longmans, Green & Co., New York, N. Y.

The lectures and studies in this book have been developed from classroom talks intended to arouse interest in, and intelligent attention to, the economic and vocational problems of making a living. The book is a welcome departure from earlier books on the study of occupations in that it ties together the three or four elements of preparation for a vocation through education, the economic phases of earning a living, the personal choice of a vocation depending upon personal likes and aptitudes, and the element of character as a factor in success. The last mentioned phase of the book is a disappointment because it narrows the discussion to only those elements which make for vocational success. Mr. Charles Schwab's "ten commandments of success" are excellent in themselves but they cover only a section of the original ten commandments which lay down the principles for all-around success of life. The chapter on the world's work is a masterful survey of the leading occupational fields.

Diagnostic Studies in Arithmetic

By G. T. Buswell. Paper, 228 pages. Price, $1.50. University of Chicago Press, Chicago, Ill.

This monograph presents the results of original studies in the four fundamental operations, to discover the processes used by children and the causes for common errors, or rather the incorrect and clumsy mental processes which result in errors. The investigator and his associates found an astonishing number and variety of difficulties due to lapses in one or more of the mental processes which must be used in any arithmetical work. Children, they found, have difficulties because some of the processes are hard to learn and the difficulties are hardly appreciated by adults who have resisted them by learning and long practice. The work in arithmetic can be improved most, not by additional drill, so much as by more, better, and specific, helpful teaching. The teacher must himself understand the difficulties and help the child acquire correct information and correct habits of work. The emphasis should not be greatly less upon drill, but upon proper methods of work before drill is begun.

School supervisors, instructors in teacher-training classes, and curriculum building will find in the study a mine of information.

Research for Teachers

By Burdette Ross Buckingham. Cloth, 386 pages. List Price, $2.20. Silver, Burdett & Co., New York City.

The argument of this interestingly written book is that teachers must take an active part in all educational research if teaching technique is to be developed and teachers are to be held in esteem as professional workers. In ten chapters the author outlines the chief factors and principles which must guide educational experimentation, its recording, and application. Separate chapters take up the learning process, the kind and application of statistics, intelligence testing, educational testing, examinations, the classification of pupils, individual remedial instruction, etc. The discussion is quite simple and as brief and popular as these technical subjects may be made. The reader will very likely depend for initiative in most research work, upon her superiors in supervisory or administrative positions and requires information that will make her a cheerful co-operator and later, with experience, an originator in search and experimentation.

We should like to see a little broader definition of education in the opening chapter, than one which limits itself to social adjustment.

How to Weave Linens

Edward F. Worst. Cloth, Imperial octavo, 166 pages. Price, $3.50. The Bruce Publishing Co., Milwaukee, Wis.

One of the finest and most satisfying of the handicrafts which have survived in this age of machine made goods is that of weaving. The author of this book has been an outstanding figure, not only as an educator and craftsman, but as a commanding and effective advocate of craftsmanship in weaving. The present work is the result of his many years of study and experience. The collection of patterns includes not only many original and adapted patterns, but also patterns collected from European and American colonial sources, in the course of travels in out-of-the-way places.

The book is intended for the experienced weaver and contains little for the novice, except introductory chapters on the raising of flax and the preparation and spinning of linen. Each of the numerous patterns, which range from the simplest two-harness drafts to the most complicated ten harness damask weave, is illustrated with an accurate photograph supplemented with a draft and complete directions for tie-up and treadling. Schools in which weaving is taught will be particularly interested in a considerable number of attractive patterns of medium difficulty for luncheon sets, napkins, etc.

Business Correspondence Handbook

Edited by James H. Picken, A.M. 836 pages, cloth bound. Published by A. W. Shaw Company, Chicago.

The subject of business correspondence is exhaustively dealt with. It not only covers the matter of form and style, but embodies the science of business promotion through the art of correspondence.

The editor has brought to his service the best thought and experience on the subject. He tells how to plan a letter, how to make it effective, how to close a letter. He analyzes business prospects, how to develop them, and how to realize them.

Problems in Artistic Wood Turning

Earl W. Ensinger. Cloth, 72 pages. Price, $1.25. Bruce Publishing Co., Milwaukee, Wis.

While this book does not proclaim itself to be a text and does not contain the simple operations in turning, it does provide a well-rounded course of spindle and face-plate turning. If supplemented with the instruction which any good teacher gives, it will enable any student to gain experience in the widest variety of work. The problems are of the interesting and useful novelty and furniture types, carefully designed for good curves and proportions, and adapted to use in the average home.

Magic Casements

Compiled by George S. Carhart and Paul A. McGhee. Cloth, 727 pages. Published by the Macmillan Co., New York City.

This collection of poems has been chosen from the works of old classical as well as very recent writers. It is divided into four parts, for the four years of high school. It is to be observed that the editors have been guided in their choice of some poems by the fact that they are songs "the same that ofttimes hath charmed magic casements, opening on the foam of perilous seas, in fairy lands forlorn." In so

BEACON FOLDING CHAIRS

Their comfort makes better students
Their quietness aids classroom efficiency
Their sturdiness insures against replacements

THE GENUINE comfort afforded by the new Beacon Folding Chair results mainly from a feature which has never before been available in a steel-frame chair—a generously proportioned and properly tilted back, designed to support the spine and kidneys. Contributing further to this comfort are a seat of ample dimensions, and a rigid all-steel frame which prevents wobbling or tipping.

Noiseless

Beacon Chairs are noiseless—due to their rigid construction and the rubber leg-tips. They are entirely free from the clatter and creaking which prove so objectionable in ordinary chairs.

Strength —Backed by a Five-Year Guarantee

Strength comes from the use of an exclusive cold-rolled, tubular steel frame to which the cross supports and moving parts are electrically welded and riveted. No bolts and screws are used anywhere. This frame is so strong that we guarantee it for five years against breakage or bending — even under a weight of 1000 pounds. A written guarantee accompanies each chair.

The guaranteed durability of Beacon Chairs insures you against replacements.

Compact — Light in Weight

They fold flat to a thickness of only 1⅜ inches; and they weigh less than 10 pounds. Setting up and folding are so simple that Beacon Chairs can be handled even by a small child.

Beacon Chairs may be had in three seat-and-back combinations: (1) wood seat and wood back; (2) upholstered seat and wood back; and (3) upholstered seat and upholstered back.

The wood seats and backs are made of 3-ply laminated wood, with waterproof gluing, constructed to stand exposure to the elements. They are guaranteed against breakage or warping.

The coverings used for the upholstered models include Fancy Spanish Leatherette, Black Leatherette, Tapestry, and Brocaded Velour.

Rigid and Safe, But Easy to Fold

Beacon Chairs have a rigidity which will be especially appreciated by those who have objected to the shakiness and wobbly construction of ordinary chairs. Beacon Chairs cannot break down or fold accidentally! Yet they are easily and quickly folded for storage or for an emergency exit.

Beacon Chairs will not tip—and there are no protruding parts to catch on clothing.

Economical

Beacon Chairs, although they possess innumerable points of superiority, cost less than other folding chairs of the better grade. Even if they did cost more, they would prove far more economical—because of the long and satisfying service which they give.

Send for a Sample ☛

Let us send you a sample for a 10-day test. For your convenience in specifying style and color, pin the coupon to your letterhead.

BEACON STEEL FURNITURE COMPANY

1841-1845 Carroll Avenue -:- -:- Chicago

BEACON STEEL FURNITURE CO.,
1841-1845 Carroll Ave., Chicago

Please send a Beacon Chair on 10-day approval, subject to return for full credit if it does not prove entirely satisfactory.

COLOR

- ☐ Brown
- ☐ Mahogany
- ☐ Battleship Gray
- ☐ Olive Green

STYLE

- ☐ Wood Seat and Wood Back
- ☐ Upholstered Seat and Wood Back
- ☐ Upholstered Seat and Upholstered Back

Name .....

Address .....

City and State.....

doing they have not always looked to the principles or the essential values expressed—a practice which we think essential in all textbook construction.

Job Sheets in Home Mechanics

Set No. 2. F. E. Tustison. Price, $0.52. The Bruce Publishing Co., Milwaukee, Wis.

These sixteen jobs in simple home repair and construction parallel an earlier set and are intended as an alternative or supplementary set in schools where more than the usual time is available.

PUBLICATIONS RECEIVED

Cost of Collecting School Taxes in Minnesota. Educational research bulletin, January, 1926, issued by the University of Minnesota, Minneapolis. In Minnesota the machinery providing the agencies necessary and concerned with the collection of school taxes is part of the cost of collecting all taxes. The costs are borne by the agency as a whole and are not directly allocated. Expenditures for education in Minnesota do not include the moneys spent for collecting school taxes. All taxes are levied and collected by county officials and the property is assessed by local agencies and equalized by county officials. The centralization of the tax collecting agencies in the county offices, as indicated, provides a simple, direct, and economical procedure for the collecting of all revenue.

Bibliography of Secondary Education Research. Bulletin No. 2, 1926, issued by the Bureau of Education, Washington, D. C. The bulletin represents the first attempt to bring together material of completed research in the field of secondary education.

The American Public and the Motion Picture. Published by the National Catholic Welfare Council, Washington, D. C. An argument for clean educational motion pictures.

Map of America's Making. R. R. Bowker Co., Publishers. New York City. An illustrated map showing the discovery and the settlement of the United States since the first discoveries to the present time.

Grade and Progress Sheet. By Ernest C. Witham, Wilmington, Dela. This is a modification of the age, grade and progress sheet which has been widely used in recent years. Mr. Witham has so improved the sheet that it is possible to classify children who are near genius, very bright, normal, and below normal. The latter are graded under seven heads so that the treatment for them is indicated. The sheet should be widely used, especially in smaller school systems where psychologists and other specialists are not available.

My Record Spelling Tablet. For use with Lippincott's Horn-Ashbaugh Spelling Book. Price, 25 for $2.50. J. B. Lippincott Co., Philadelphia, Pa. A tablet made to furnish a convenient blank for the spelling lesson and a record of the pupil's work. It affords a visible record of pupil progress at a small expense, saves class time, guides the teacher in the use of the Horn method, and leaves the pupil a running record of his progress in each lesson.

A Survey of Geography. Bulletin No. VI—II, April, 1926. Issued by the department of educational measurements, West Allis, Wis. It is pointed out that the scores in all scales are directly comparable and that the exercises are scaled so that there is an equal unit of difficulty between succeeding exercises. The exercises in the scales are grouped into three difficulty groups, each group containing ten exercises, and the difference in the average difficulty value of each group is ten units.

The study reveals that for the past year and a half the repetition of geography is about so much wasted time if not worse than that. The material is repeated material to the child and his interest lags. It is found that too large a per cent of pupils are retarded. This per cent increases as each grade is passed, until in 7A there are 98 per cent retarded. The situation is of some concern to the school authorities.

The Pontiac Spelling List. Paper, 16 pages; price, 10 cents. School Service Co., Pontiac, Ill. This list contains five hundred words, arranged in lesson form, for high school use. The words included have been found to present difficulties to students and are necessary words in the vocabulary of educated men and women.

National Spelling Scale, for Senior High Schools. By John J. Tipton. The National Publishing Society, Mountain Lake Park, Md. This test provides a series of 54 sentences from each of which one word has been omitted. The sentences are to be read slowly to the class and the missing words filled in by the students. The grade of difficulty is adjusted to high school classes and has been determined by wide studies of high school vocabularies. Three additional tests of equal difficulty are being developed.

SCHOOL BOARD NEWS NOTES

—An Arkansas statute permitting special school districts to furnish transportation for pupils does not authorize school boards to arrange transportation for students to another district, or to pay their tuition, the Supreme court of the state has ruled in affirming the Lincoln chancery court in the case of the Gould special school district against Fred Holdtoff. Holdtoff sued as a taxpayer to recover $50 a month paid for transporting his children to the Grady school district where they took advanced studies and also to abrogate a contract for the next year. The court ordered the payments refunded and held the contract void.

—New York, N. Y. The school officials have planned a drive to reduce the number of oversize classes and, in general, to bring the average class size down to a point more nearly ideal than that which now prevails.

Since the effect of the enormous building program of the past four years was first met in 1924, oversize classes—those with registers of more than 50 pupils—have been reduced in number from 502 to 114. The board of education's finance committee, in approving for the 1927 budget the assignment of 100 license No. 1 teachers for the purpose of further decreasing the number of large classes, hopes to eliminate this evil entirely. Many classes will be left with more than the ideal of 25 to 38 in a classroom, but the seriously crowded classes, it is expected, will be relieved.

Further relief will be afforded if the elementary grade register decreases as much as is expected. The budget will contain provision for the same number of children as were in the grades last year. If the reduction is as great as 3,000 students, which it is estimated will be the case, this will release between 60 and 70 teachers for a further distribution of the class load.

In 1923 the average number of pupils in a class was 41, in 1924 it was 41.1, and last year it was reduced to 40. In the junior high school, the average size was 38.8 in 1923, 39.4 in 1924, and 39 in 1925. Last term it was 39.2.

THE PUBLIC SCHOOL JANITOR AND SOME OF HIS DUTIES, FROM THE GRADE SCHOOL STANDPOINT[1]

By C. C. Shook, Peoria, Illinois

The school janitor's position is a responsible one
From the time he begins till his day's work is done,
For there are hundreds of lives in his care
And he is responsible for them while there.
Believing he puts their interest first,
They fear not fire or boilers burst.
His duties are many and some are hard,
Not only in the building, but out in the yard.
From early morn till late at night
His hours are long. Is it right?
We have sweeping and dusting and clocks to set,
And fires to clean till we're wet with sweat.
Then we are expected to put on our lids
And go out at recess with all the kids.
But do you know what the board would say
If we demanded an eight hour day?
"We're sorry men but it can't be done,
"We would need two sets of men instead of one."
There's too much expected of the janitor man,
Even though he's willing to do all he can.
One wants this and another wants that,
Until he hardly knows where he's at.
But, if he cares anything about holding his job,
It will do him no good to go round and sob.
If the teachers weren't long suffering and kind,
Some of us birds would very soon find
That unless we quit some of our ugly habits
We wouldn't have jobs any more than rabbits.
Sometimes we go round with a scowl on our face
As though we had grudges at all of our race.
When it would cost no more to wear a smile,
And it'll lighten the load and shorten the mile.
Now if we're the ones with scowly faces,
Let's make an effort to change our paces;
So teachers won't need go round with a dread
That we're about ready to bite off their head.
Now I'm not putting this any too strong—
For that would be entirely wrong—
But am only repeating what's often been said,
"Our janitor's a grouch and an old sore head."
Then I said to myself, "Now let me see,
Doesn't this really apply to me?"
And remembering some more, "Now look here, Cy,
Don't you remember in years gone by
You wore a face as hard as an owl,
And gave the children an awful scowl?"
How a teacher one day
Very kindly did say,
"What are you mad about, Mr. Shook?"
Then she could see a change in my look,
For the sunshine drove the clouds away
To return again no more that day.
And the teacher saw I wasn't mad.
It was only the scowly habit I had.
And since that time old C. C. Shook
Has moved around with a pleasant look,
Tried always to wear a pleasant face,
Which didn't hurt the looks of the place.
There are some pleasant things in a janitor's life,
It isn't all worry and strife.
While there are also things to make him glad,
There are many things to make him mad.
There are some duties in a janitor's work
Which he feels inclined to shirk;
When word comes down that a child is sick,
"Please bring your mop, and come up right quick."
Now that's a duty I don't like to do,
How about it men, how is it with you?
But we must take the bitter with the sweet
Or be cast out into the street.
You know when we're working with the fair sex—
Though many things come up to vex—
We must be pleasant if we can
Or we're no true gentleman,
Though sometimes it gets under our hide,
And really hurts our manly pride.
But when we are working for a man, you know,
And anything doesn't suit, we can tell him to go
Straight to Chicago or Bluffer Town,
Or some other place of equal renown.
And getting it out of the system helps a lot,
For then it's always soon forgot.
Now there's the janitor who wears a smile
Because he finds it is worth while;
And he is the one who acts a man,
Who is willing to do the best he can.
But there's the one with the chip on his shoulder
Who always grows worse as he grows older.
There's the janitor mechanically inclined—
That he is the really handy man,
He keeps things in order spick-and-span.
Go to his building, you will always find
He scrubs and cleans, and makes repairs,
Because he is the man that really cares.
Then there is the independent guy,
Who is satisfied just to get by.
Of course, we don't presume to have that kind,
But if such a one we ever find,
He soon gets canned, he soon gets fired,
And a better one in his place is hired.
And there's the janitor who's hard to find
When the boss comes round on his regular grind.
He's another kind we do not claim,
For it would be a burning shame
To leave our buildings unprotected,
And all the children so neglected.
And now I've given you this poetic pill,
It ought to help you, I hope it will.

[1]These verses were read recently by Mr. C. C. Shook, a janitor of long and efficient service, at a dinner of the Peoria, Ill., School Janitors' Association, to which members of the local board of education and members of the executive school staff were invited.

—Quincy, Ill. A tuition rate of $135 per pupil for high school students and $80 for grade pupils has been fixed by the school board.

—Bus hire for transporting pupils to school in Illinois cannot be legally paid by a board of education, according to an opinion of Attorney General Carlstrom, made public at Springfield. The decision refers particularly to the payment of transportation by the board of one district to another for high school students and does not affect street car fare.

—Mr. Lowell E. Jepson has been elected president of the Minneapolis board of education for the year 1926-27, succeeding Mr. A. D. Ortquist. Mrs. H. D. Kilgore has been reelected secretary. Mr. Ortquist has been made the board's representative on the municipal board of estimate and taxation for the ensuing year.

—Mr. Harry Greenwood has been appointed a member of the board of education at Gas City, Ind.

—Mr. W. C. Wehe has been elected president of the school board at Milwaukee, Wis. Mr. Wehe was elected to the board in 1923, his term to end in 1929.

THE MENTAL ABILITY OF ATHLETES AND NON-ATHLETES

(Concluded from Page 45)

of age for the athletes and 15.85 for the non-athletes which shows that there is comparatively little difference in their ages. A small margin of .12 of a year.

The students were compared in mental ability such as memory, mathematics, etc.; the different charts showed very little difference if any; sometimes we found one group had a slight advantage, and then again the other was ahead by a small margin.

Several tables were made of each type of student to find out the coefficient of correlation between memory and mathematics; memory and opposites; scholastic record, and percentile rank. Preison Method was used in finding the coefficient of correlation in all of these tables. There are thirteen steps to his method but space does not allow us to go into detail. The tables for these correlation cover about twenty pages, but it is not possible to publish them in this article. Anyone interested in these may obtain them by writing for same. Below is given a table showing the results, briefly of these charts and tables.

	Athletes	Non-Athletes
1—Percentile rank—		
a. Highest per cent	17	11
b. Median	80.36	73.31
c. Arithmetical mean	74.9	67.1
d. Quartile deviation	15.13	17.82
2—Chronological age—		
a. Median	15.73	15.85
b. Arithmetical mean	15.93	15.93
c. Quartile deviation	.97	1.01
3—Ability tests, correlation—		
a. Memory and Mathematics	.20	.26
b. Memory and opposites	.32	.32
4—Scholastic record—		
a. Median	81.54	81.42
b. Arithmetical mean	80.5	85.3
c. Quartile deviation	5.626	5.38
d. Correlation	.55	.57

Conclusion

The conclusion was drawn that the athletes have equally as much native and acquired intelligence as the non-athletes. In the tests given to the students in eight representative high schools in the state of Illinois it is shown that they have a higher percentile rank than the non-athletes.

Second, that the athletes are not older than non-athletes. They do not remain in school longer to acquire the same amount of knowledge, in fact, the athletes were slightly younger than the non-athletes.

The third significant point is that the athletes had a very much higher percentile rank than the non-athletes, but the correlation between scholastic record and percentile rank was lower. From which it can be concluded that if the athletes were encouraged, or forced, to spend the same amount of time on their studies as the non-athletes, the former would receive fully as high grades as the latter.

Fourth, the investigation of the groups of students apparently proves the question that many people have been wondering about—"Are athletes as intelligent as non-athletes?" It is proven in every phrase of the study of the problem, that the athletes have equally as good mental ability as the non-athletes; but do not make use of this ability to its greatest extent.

Fifth, the non-athletes and athletes are practically equal in ability so far as the different correlations are concerned, in this investigation. This is contrary to the idea that athletes usually have little or no correlation between their ability and their subjects in school. The correlation of coefficient between the percentile rank and scholarship in both groups was high enough to be considered significant according to most authorities.

Sixth, the comparison of the two groups on the basis of scholarship gave the non-athletes very little advantage refuting the theory stated earlier in the paper.

Lastly, it seems to prove it would be beneficial for all high school students to have some form of exercise as a part of their school work, but not as intense as that received by the athletes. It takes too much of their time, which should be spent on their subjects.

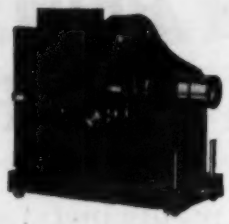
WOMEN AS EDUCATIONAL LEADERS

(Concluded from Page 52)

present time 42 women city school superintendents.

The greatest demand for women in an administrative capacity, it may be said, is in the position of county, union, or district superintendent of schools. In 1916 there were 508 women filling this position; at the present time there are 915, an increase of 407. Ten years ago the tendency to fill this position was confined almost wholly to the west, and but one southern state availed itself of women in such capacity. Now every southern state with the exception of three, Louisiana, Maryland, and Virginia, and every state in the Union but eight, utilizes one or more women in the county, district, or union superintendency position.

—Cambridge, Mass. The school board has granted increases in salary to definite groups of teachers, the increases to be prorated in accordance with the money available for salary raises and the seniority of teachers. The deans of high schools were given $2,514, while heads of schools with ten or more teachers, were designated as headmasters and given $360 more than their base pay. Heads of schools with less than ten teachers under them were designated as masters, and were given $200 more than base pay.



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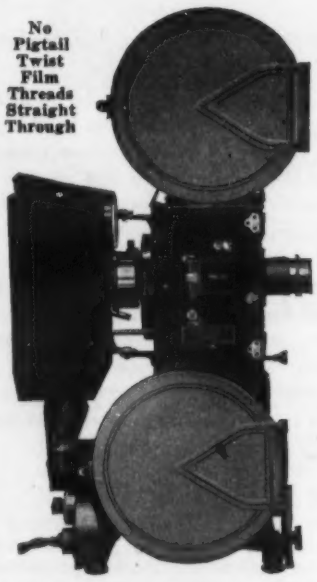

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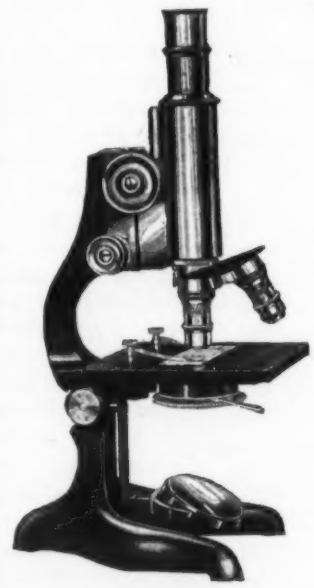

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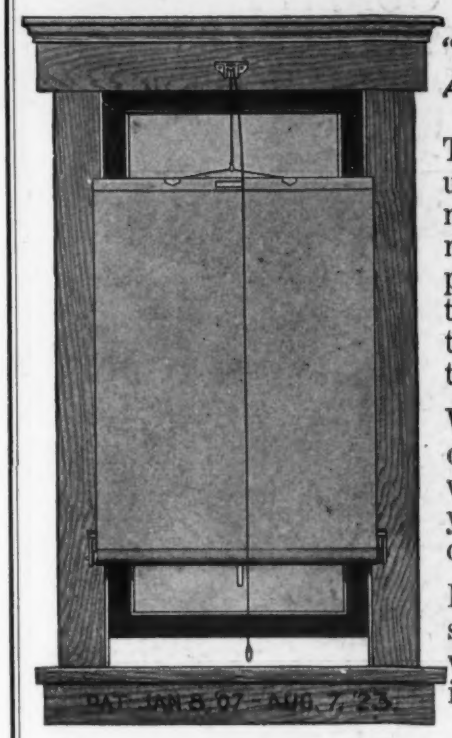

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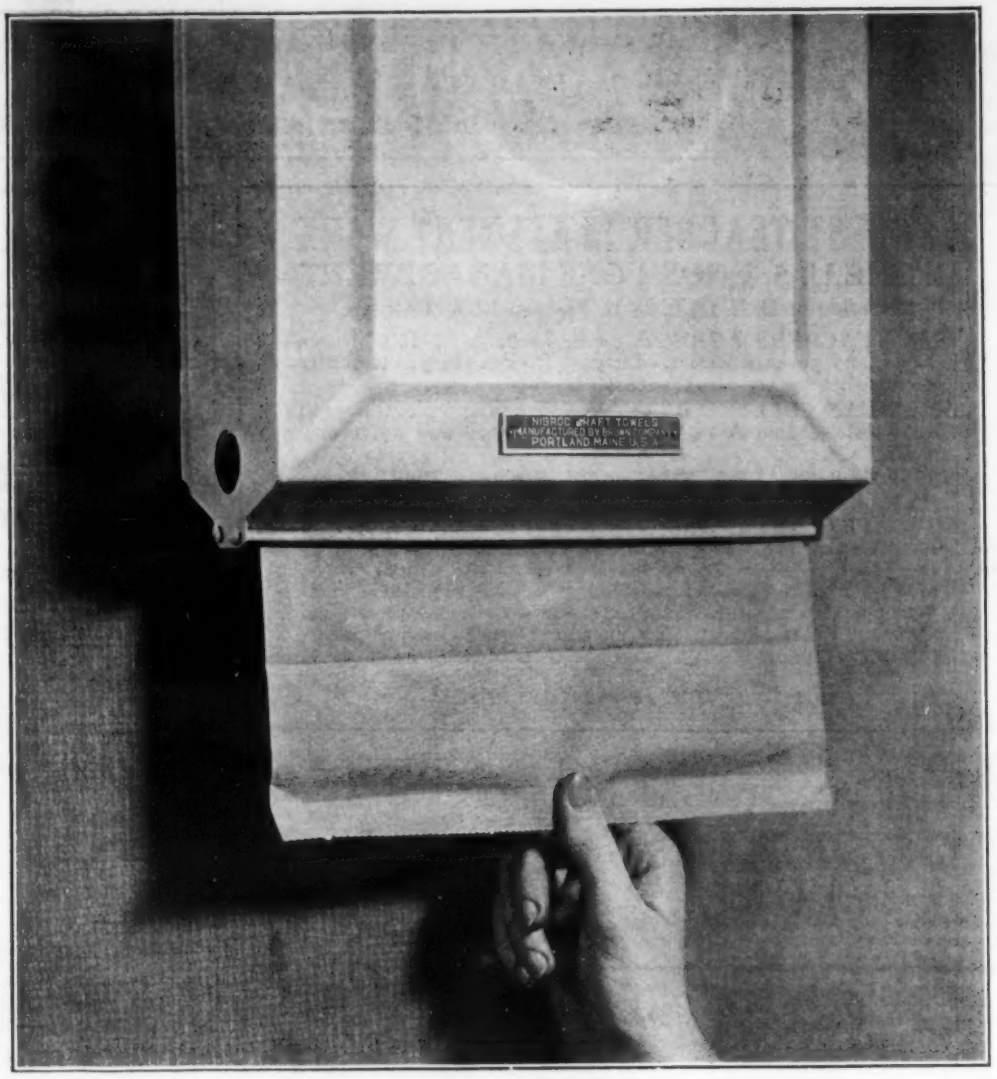

Nibroc—a paper towel *that seems made for school children*

If the Nibroc Towel **were** made especially to your order, it could not be better suited to school use.

The Nibroc fibre is highly absorbent—takes up the last drop of moisture. It doesn't lint—doesn't tear easily—doesn't get soggy. You can wipe hands and face vigorously with a Nibroc Towel. It is agreeable to use, and leaves a pleasant feeling that encourages children to be clean.

The Nibroc Towel doesn't roughen the hands.

It means a fresh, clean towel for every child. Used once, then thrown away, it doesn't spread colds through the class, as a common towel is apt to. It is economical, too. The Nibroc Cabinet serves one at a time, enough to thoroughly dry both face and hands.

You yourself will enjoy using the Nibroc Towel. Let us send you enough samples to make a thorough test in your office or home.

The manufacturers, Brown Company, Portland, Maine, will be pleased to mail to members of School Boards or of any educational institution a sample pack of Nibroc Towels.

School Board Journal

DIRECTORY OF EQUIPMENT AND SUPPLIES

The names given below are those of the leading and most reliable Manufacturers, Publishers and Dealers in the United States. None other can receive a place in this Directory. Everything required in or about a schoolhouse may be secured promptly and at the lowest market price by ordering from these Firms.

ACOUSTICS
Cabot, Inc., Samuel
AIR CONDITIONING
Air Conditioning & Eng. Co.
American Blower Company
Buckeye Blower Company
Buffalo Forge Company
Nelson Corporation, The Herman
AIR WASHERS
American Blower Company
ARCHITECTS
(See Schoolhouse Architects' Directory)
ASH HOISTS
Gillis & Geoghegan
AUDITORIUM SEATING
American Seating Company
Arlington Seating Company
Derby & Company, Inc., P.
Heywood-Wakefield Co.
Kundtz Company, The Theodor
Peabody School Furniture Co.
Steel Furniture Company
BASEMENT SASH, STEEL
Detroit Steel Products Company
BASEMENT WINDOWS, STEEL
Detroit Steel Products Company
BENCH LEGS
Angle Steel Stool Company
BLACKBOARD CLEANER
Mohawk Slate Machine Company
BLACKBOARDS—MFRD.
Beaver Products Co., Inc., The
N. Y. Silicate Book Slate Co.
Rowles Co., E. W. A.
Standard Blackboard Company
Weber Costello Company
BLACKBOARD-SLATE
Natural Slate Blackboard Co.
Penna. Structural Slate Co.
BLEACHERS
Circle A Products Corp.
Leavitt Mfg. Company
Wayne Iron Works
BOILERS
Frost Mfg. Company, The
General Boilers Company
Heggie Simplex Boiler Company
Kewanee Boiler Company
BOOK CASES
Rand Kardex Bureau
Peterson & Company, Leonard
BOOK COVERS
Holden Patent Book Cover Co.
Iroquois Publishing Company
Walraven Book Cover Co., A. T.
BOOKKEEPING MACHINES
Remington Typewriter Company
BOOK PUBLISHERS
American Book Company
Bruce Publishing Co.
Gregg Publishing Company
Heath & Co., D. C.
Houghton, Mifflin Co.
Iroquois Publishing Company
Laidlaw Brothers
Little, Brown and Company
Longmans, Green & Company
Merriam Co., G. & C.
Newson & Company
Palmer Company, A. N.
Winston Co., The John C.
BRUSHES
Palmer Company, The
BUILDING MATERIALS
Asbestos Buildings Company
Detroit Steel Products Company
Duriron Co., Inc., The
Milwaukee Corrugating Company
Sterling Products Co., The
Structural Slate Company
Truscon Steel Company
BULLETIN BOARDS
Blasteel Manufacturing Co.
BUSES
Graham Brothers
BUS BODIES
Kentucky Wagon Mfg. Company
BUS VENTILATION
Nichols-Lintern Co.
CAFETERIA EQUIPMENT
Angle Steel Stool Company
Dougherty & Sons, Inc., W. F.
Pick & Company, Albert
Sani Products Co,. The
Standard Gas Equipment Corp.
Van Range Co., John
CALCULATING MACHINES
Monroe Calculating Machine Co.
CHAIRS
Angle Steel Stool Company
Beacon Steel Furniture Company
Clarin Manufacturing Co.
Derby & Company, Inc., P.
Stakmore, Company, Inc.
Tell City Chair Company
CHARTS
Nystrom & Co., A. J.
Union School Furnishing Company
CLOCKS—PROGRAM
International Time Recording Co.
Landis Eng. & Mfg. Co.
Standard Electric Time Co.
COMMERCIAL DEPARTMENT FURNITURE
Hamilton Mfg. Co., The
Wiese Laboratory Furniture Co.
CONSERVATORIES
Lord & Burnham Company
CORK TILE AND CORK CARPET
Bonded Floors Co., Inc.
COOKING APPARATUS
Dougherty & Sons, Inc., W. F.
CRAYON
American Crayon Company
Binney & Smith
National Crayon Co.
Rowles Co., E. W. A.
Weber Costello Company
CRAYON TROUGHS
Dudfield Manufacturing Co.
DEAFENING QUILT
Cabot, Inc., Samuel
DESKS—OFFICE
Gunn Furniture Co.
Imperial Desk Company
DISHWASHERS
Colt's Patent Fire Arms Mfg. Co.
DISINFECTANTS
Palmer Company, The
DISPLAY FIXTURES
Multiplex Display Fixture Co.
DOMESTIC SCIENCE EQUIP.
Christiansen, C.
Cleveland Range Co.
Dougherty & Sons, Inc., W. F.
Kewaunee Mfg. Co.
Peterson & Co., Leonard
Pick & Co., Albert
Sheldon & Co., E. H.
Standard Gas Equipment Corp.
Van Range Co., John
Wiese Laboratory Furniture Co.
DOOR CHECKS
Norton Door Closer Co.
Sargent & Company
DOORS, STEEL-FIREPROOF
Detroit Steel Products Company
DRAFTING DEPARTMENT FURNITURE
Angle Steel Stool Company
Christiansen, C.
Economy School Furniture Co.
Hamilton Mfg. Co., The
Kewaunee Mfg. Company
Sheldon & Co., E. H.
Wiese Laboratory Furniture Co.
DRINKING FOUNTAINS
Century Brass Works, Inc.
Clow & Sons, James B.
Imperial Brass Mfg. Company
Murdock Mfg. & Supply Co., The
Nelson Mfg. Company, N. O.
Puro Sanitary Drink. Fount. Co.
Rundle-Spence Mfg. Company
Taylor Company, Halsey W.
ELECTRICAL EQUIPMENT
Graybar Electric Company
ERASERS
Palmer Company, The
Rowles Company, E. W. A.
Weber Costello Co.
ERASER CLEANERS
Lynn Company, James
FENCES
American Fence Construction Co.
Anchor Post Iron Works
Cyclone Fence Co.
Page Fence & Wire Prod. Assn.
Stewart Iron Works Co., The
Wayne Iron Works
FILING CABINETS
Yawman & Erbe Mfg. Company
FILING SYSTEMS
Rand Kardex Bureau
FIRE ESCAPES
Logan Co. (Formerly Dow Co.)
Potter Manufacturing Corp.
FIRE EXIT LATCHES
Bolles Anti-Panic Lock Co., Wm.
Potter Manufacturing Corp.
Sargent & Company
Steffens-Amberg Company
Vonnegut Hardware Co.
FIRE PROOF DOORS
Detroit Steel Products Co.
FIREPROOFING MATERIALS
Asbestos Buildings Company
Milwaukee Corrugating Company
FLAGS
Annin & Co.
FLAG POLES
Nelson Mfg. Co., N. O.
FLOORING
Bonded Floors Co., Inc.
Carter-Bloxonend Flooring Co.
Maple Flooring Mfrs. Ass'n.
Muller, Inc., Franklyn R.
Oak Flooring Bureau
Stedman Products Company
FLOORING—COMPOSITION
Bonded Floors Co., Inc.
Duraflex Company, The
Stedman Products Co.
FLOOR COVERING
Bonded Floors Co., Inc.
Duraflex Co.
Heywood-Wakefield Co.
Muller, Inc., Franklyn R.
Stedman Products Co.
FLOORING—MASTIC
Moulding Brick Co., Thos.
FLOOR TILE
Bonded Floors Co., Inc.
Stedman Products Co.
FLOOR TREATMENTS
Swan Company, The
FLUSH VALVES
Bowlus Manufacturing Co., The
Haas Company, Philip
Clow & Sons, James B.
FOLDING PARTITIONS
Hamlin, Irving
Wilson Corp., Jas. G.
FURNITURE
American Seating Co.
Andrews Company, The A. H.
Angle Steel Stool Company
Arlington Seating Company
Beacon Steel Furniture Company
Columbia School Supply Company
Derby & Company, Inc., P.
Detroit School Equipment Co.
Economy School Furniture Co.
Gunn Furniture Company
Hamilton Mfg. Co., The
Heywood-Wakefield Co.
Imperial Desk Company
Kewaunee Mfg. Company
Kundtz Company, The Theo.
National School Equipment Co.
Peabody School Furniture Co.
Rand Kardex Bureau
Readsboro Chair Company
Royal Metal Mfg. Company
Rowles Co., E. W. A.
Scientific Seating, Inc.
Stafford Mfg. Company, E. H.
Standard School Equipment Co.
Steel Furniture Company
Tell City Chair Company
Union School Furnishing Co.
Wiese Laboratory Furniture Co.
GAS MACHINES
Matthews Gas Machine Co.
GLASS
Manufacturers Glass Company
GLASS ENCLOSURES
Lord & Burnham Company
GLOBES
Nystrom & Co., A. J.
Rand, McNally & Company
GRANDSTANDS
Wayne Iron Works
GRAPH REPORTS
Visual School Report Company
GREENHOUSES
Lord & Burnham Company
GYMNASIUM APPARATUS
Chicago Gymnasium Equip. Co.
Medart Mfg. Co., Fred
Narragansett Machine Company
GYMNASIUM BASKETS
Racine Iron & Wire Works
HEATERS
Waterman-Waterbury Company
HEATING SYSTEMS
American Blower Company
American Foundry & Furnace Co.
Buckeye Blower Co.
Buffalo Forge Company
Clow & Sons, Jas. B. ("Gasteam")
Dunham Company, C. A.
Frost Mfg. Company, The
General Boilers Company
Heggie Simplex Boiler Company
Nelson Corp., The Herman
Nesbitt, Inc., John J.
Peerless Unit Vent. Co., Inc.
Webster & Co., Warren
Young Pump Company
HYDRANTS
Murdock Mfg. & Supply Co., The
INK
Rowles Co., E. W. A.
INK WELLS
Jacobus School Prod. Co., Inc., The
Squires Inkwell Company
Tannewitz Works, The
U. S. Inkwell Company
JANITORS' SUPPLIES
Dougherty & Sons, Inc., W. F.
Milwaukee Dustless Brush Co.
Palmer Company, The
Pick & Co., Albert
Robertson Products Co., Theo. B.
Van Range Co., John
LABORATORY FURNITURE
Alberene Stone Company
Angle Steel Stool Company
Columbia School Supply Company
Kewaunee Mfg. Company
Peterson & Co., Leonard
Sheldon & Company, E. H.
Wiese Laboratory Furniture Co.
LABORATORY SUPPLIES
Leitz, Inc., E.
LIBRARY FURNITURE
Hamilton Mfg. Co., The
Peterson & Company, Leonard
Rand Kardex Bureau
Wiese Laboratory Furniture Co.
Yawman & Erbe Mfg. Company
LIGHTING FIXTURES
Beardslee Chandelier Mfg. Co.
Graybar Electric Company
Guth Compmany, Edwin F.
Westinghouse Elec. & Mfg. Co.
LINOLEUMS
Bonded Floors Co., Inc.
LIQUID FLOOR HARDENER
Sonneborn Sons, L.
LOCKERS
Berger Manufacturing Company
Durabilt Steel Locker Co.
Durand Steel Locker Co.
Federal Steel Fixture Co.
Lyon Metallic Mfg. Co.
Medart Mfg. Co., Fred
Narragansett Machine Company
Wilson Corp., Jas. G.
LOCKS
Bolles Anti-Panic Lock Co., Wm.
LOCKS—KEYLESS
Miller Keyless Lock Co., J. B.
Triple Metals Corporation
MAPS
Nystrom & Co., A. J.
Rand, McNally & Company
MEMORIAL TABLETS
Russell & Sons Co., Albert
METAL BLACKBOARD TRIM
Dudfield Manufacturing Co.
METAL LATH
Berger Manufacturing Company
Milwaukee Corrugating Company
METAL CHALK RAILS
Milwaukee Corrugating Company
MICROSCOPES
Bausch & Lomb Optical Co.
Leitz, Inc., E.
Spencer Lens Company
MODELLING CLAY
Hammett Company, J. L.
MOTION PICTURE MACHINE
DeVry Corp., The
PAINTS
Hockaday Company, The
Sterling Products Co., The
Tropical Paint & Oil Co., The
U. S. Gutta Percha Paint Co.
Vortex Mfg. Company
PAINT SPRAYING EQUIPMENT
DeVilbiss Mfg. Co., The
PAPER
Fowler Paper Co., W. A.
PANIC EXIT DEVICES
Bolles Anti-Panic Lock Co., Wm.
Steffens-Amberg Company
Vonnegut Hardware Company
PENCIL SHARPENERS
Automatic Pencil Sharpener Co.
PENMANSHIP PAPERS
American Tablet & Stationery Co.
PIANOS
Aeolian Company, The
PLAYGROUND APPARATUS
Chicago Gymnasium Equip. Co.
Hill-Standard Company
Medart Mfg. Co., Fred
Mitchell Manufacturing Co.
Narragansett Machine Company
PLUMBING FIXTURES
Bowlus Manufacturing Co., The
Bradley Wash Fountain Company
Clow & Sons, James B.
Century Brass Works, Inc.
Copper & Brass Research Assn.
Duriron Co., Inc., The
Ebinger San. Mfg. Co., The D. A.
Haas Company, Philip
Hoffmann & Billings Mfg. Co.
Imperial Brass Mfg. Company
Nelson Mfg. Company, N. O.
Never-Split Seat Company
Rundle-Spence Mfg. Company
Vogel Company, Joseph A.
PORTABLE SCHOOLHOUSES
American Portable House Co.
Armstrong Co., The
Asbestos Buildings Co.
Bossert & Sons, Louis
Circle A Products Corporation
Mershon & Morley
Togan-Stiles Company
PROJECTION LANTERNS
Spencer Lens Co.
Trans-Lux Daylight Picture Screen Corp.
PROJECTORS
Bausch & Lomb Optical Co.
Holmes Projector Company
PUBLIC ADDRESS SYSTEMS
Graybar Electric Company
RANGES
Cleveland Range Company, The
RECORD SYSTEMS
Rand Kardex Bureau
Visual School Report Company
REINFORCED STEEL
Berger Manufacturing Company
ROLLING PARTITIONS
Acme Partition Company
Wilson Corp., Jas. G.
SAFETY STAIR TREADS
American Abrasive Metals Co.
SASH OPERATING DEVICES, STEEL
Detroit Steel Products Company
SASH, STEEL
Detroit Steel Products Company
SASH, VENTILATING
Detroit Steel Products Company
SCIENTIFIC APPARATUS
Knott Apparatus Co., L. E.
Rowles Co., E. W. A.
SCREENS—PICTURE
Trans-Lux Daylight Picture Screen Corp.
SCRUBBING EQUIPMENT
Finnell System, The
SEWAGE DISPOSALS
Waterman-Waterbury Company
SHADE ADJUSTER
Metal Forming Corp.

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SHOWERS
Clow & Sons, James B.
Hoffmann & Billings Mfg. Co.

SKYLIGHTS—METAL
Milwaukee Corrugating Co.

SPRAY-PAINTING EQUIPMENT
DeVilbiss Mfg. Co., The

STAGE CURTAINS, EQUIPMENT AND SCENERY
Acme Scenic Studios
Beck & Sons Co., The Wm.
Jackson Corp, A. P.
Kansas City Scenic Co.
Lee Lash Studios
Novelty Scenic Studios
Tiffin Scenic Studios
Twin City Scenic Company
Universal Scenic Studios, Inc.
Volland Scenic Studios, Inc.

STAIR TREADS
Alberene Stone Company
American Abrasive Metals Co.
Safety Stair Tread Co., The
Stedman Products Co.

STATIONERS
Blair Company, J. C.

STEEL CASINGS—Doors, Windows
Milwaukee Corrugating Company

STEEL JOISTS
Truscon Steel Company

STEEL SASHES
Detroit Steel Products Company

STEEL STORAGE CABINETS
Durabilt Steel Locker Co.
Durand Steel Locker Company
Medart Mfg. Co., Fred

STEEL WINDOWS
Detroit Steel Products Company

STOOLS, STEEL
Angle Steel Stool Company

TABLES
Derby & Company, Inc., P.
Gunn Furniture Company
Hamilton Mfg. Co., The
Mutschler Brothers Company
Rand Kardex Bureau
Rinehimer Bros. Mfg. Co.

TABLETS
American Tablet & Stationery Co.
Blair Company, J. C.

TALKING MACHINES
Victor Talking Machine Co.

TEACHER AGENCIES
Natl. Assn. of Teacher Agencies
Teacher Agencies Directory

TELEPHONE SYSTEMS
Federal Tel. & Tel. Co.
Graybar Electric Company

TEMPERATURE REGULATION
Buffalo Forge Company
Johnson Service Company

TOILET PAPER AND FIXTURES
A. P. W. Paper Company
National Paper Products Co.
Palmer Company, The

TOILET PARTITIONS
Clow & Sons, James B.
Mills Company, The
Sanymetal Products Company
Structural Slate Company
Vitrolite Company
Weis Mfg. Co., Henry

TOWELS
A. P. W. Paper Company
Bay West Paper Company
Brown Company
Chicago Hardware Foundry Co.
National Paper Products Co.
Palmer Co., The

TYPEWRITERS
Remington Typewriter Co.
Underwood Typewriter Company

TYPEWRITER SUPPLIES
Remington Typewriter Company

VACUUM CLEANING SYSTEMS
Spencer Turbine Company, The
Graybar Electric Company

VACUUM PUMPS
Nash Engineering Company

VALVES—FITTINGS
Bowlus Manufacturing Co., The
Clow & Sons, James B.

VARNISHES
Sterling Products Co.
Valentine & Company

VENTILATING SYSTEMS
American Blower Company
American Foundry & Furnace Co.
Buckeye Blower Company
Buffalo Forge Company
Dunham Company, C. A.
Milwaukee Corrugating Co.
Nelson Corp., The Herman
Nesbitt, Inc., John J.
Peerless Unit Vent. Co., Inc.
Young Pump Company

VENTILATORS
American Blower Company
Buffalo Forge Company
Globe Ventilator Company
Knowles Mushroom Ventilator Co.
Milwaukee Corrugating Co.
Peerless Unit Ventilation Co., Inc.

VENTILATORS-WATER CLOSETS
Bowlus Manufacturing Co., The

VOCATIONAL EQUIPMENT
Buffalo Forge Company
Christiansen, C.
Columbia School Supply Co.
Sheldon & Company, E. H.
Wiese Laboratory Furniture Co.

WAINSCOTING
Stedman Products Co.

WARDROBES
K-M Supply Company
Wilson Corp., Jas. G.

WASTE PAPER BASKETS
Cordley & Hayes
National Vulcanized Fibre Co.

WATER COOLERS
Cordley & Hayes

WATER PURIFIERS
Clow & Sons, Jas. B. (R. U. V.)
R. U. V. Company, The

WATER SYSTEMS
Myers & Bros. Co., F. E.

WEATHERSTRIPS
Athey Company, The
Chamberlin Metal Weatherstrip Co.
Monarch Metal Products Co.

WINDOWS—ADJUSTABLE
Austral Window Company
Detroit Steel Products Company
Truscon Steel Company
Universal Window Company
Williams Pivot Sash Company

WINDOW FIXTURES
Columbia Mills, Inc.
Williams Pivot Sash Company

WINDOW GUARDS
American Fence Construction Co.
Badger Wire & Iron Works
Logan Co. (Formerly Dow Co.)
Stewart Iron Works Co., The

WINDOWS—REVERSIBLE
Detroit Steel Products Company
Williams Pivot Sash Company

WINDOW SHADE CLOTH
Columbia Mills, Inc.
Du Pont de Nemours & Co., E. I.
Western Shade Cloth Company

WINDOW SHADES
Aeroshade Company
Athey Company
Columbia Mills, Inc.
Draper Shade Co., Luther O.
Du Pont de Nemours & Co., E. I.
Maxwell & Co., S. A.
Steele Mfg. Co., Oliver C.
Western Shade Cloth Company

WINDOW SHADE HOLDERS
Allen Shade Holder Co., The

WINDOW SHADE ROLLERS
Columbia Mills, Inc.
Hartshorn Company, Stewart
Western Shade Cloth Company

WINDOWS, STEEL
Detroit Steel Products Company

WIRE GUARDS
Badger Wire & Iron Works
Cyclone Fence Co.
Logan Co. (Formerly Dow Co.)
Stewart Iron Works Co., The

ADVERTISERS' REFERENCE INDEX

What the Schoolmaster Found in His Mail

This comical epistle was in the schoolmaster's mail just recently at a way-back bush settlement in Australia:

"Dear Teacher.—I hope you will excuse me writeing to you; My Son informs me that he is only in the Ith Standard. Now Sir it seems to me to be a grave mistake as he able to read almost anything at sight; besides being able to spell without any book such words as the following Encyclopaedia Valetudinarian Nebuchadnezzar Eucalyptus. Also the name of the wife of Amasis IIth of Egypt 538 b. c., who rejoiced in the short name of Ankhsenpiraneferhat.

"He also knows tables up to 1012 times. Farthings and Pence Tables; and he can arithmetic in his head without hitting his chest or throwing figures when he sums together. He has a big head for picking up, and can assimulate complexities and puzzling knowledge with very rapidity.

"Hopeing you will kindly examine him so as he can go in a higher class as he was 9 years ago last December. If you will, I will be very obliged to you.—Yours faithfully," etc.

Ask the Summer Boy

From the Kirksville (Mo.) Express

What is more lovely than a schoolhouse in vacation?

Nothing to Wear

Williams, who had been a track star in college, frequently would don his track outfit and trot for a half or three-quarters of an hour along some of the quiet streets of Boston after dusk. This seemed quite a pleasant diversion after a busy day at the office.

One evening as he was enjoying a vigorous run, he was startled by an anguished cry from the sidewalk. He slowed down and went over to be of whatever assistance was necessary, only to discover his laundress.

"O, Mr. Williams," she said, "will you ever forgive me? I know I'm late this week, but if you'll run right home, I'll guarantee to have all your things to you first thing in the morning!" —Toronto Globe.

The Great Reward

Professor: "You have now been in my service twenty-five years, I believe, Mary?"

Faithful Domestic (expectantly): "Yes, sir."

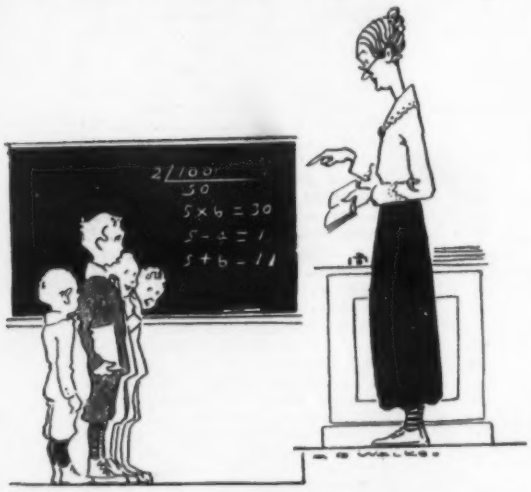
Professor: "Well, as a reward for your faithful services, I have decided to name after you the new species of beetle I have just discovered."

Qualified for the Job

"Now, then, Jones Minor, what do you mean to be when you leave school?"

"Please, sir, I should like to be a doctor."

"Well, you certainly have the qualification of illegible writing."—Punch.



Too Much for Him

Teacher (during a lesson in mental arithmetic): "Now, Dick, suppose it was your birthday, and your uncle gave you five dollars, your aunt two dollars, your father three dollars, and your mother two dollars and a half. What would be the result?"

Dick: "Please, ma'am, an inquest!"

A Sensible Precaution

The Professor: "I say, what's the idea of dating this postcard the twelfth, when today's only the ninth?"

Wife: "Because, dear, I'm asking you to mail it."

The Lost Watch

"The worst case of absent-mindedness I've ever come across," began the story-teller, "was a college professor I met in London last year. He was on the way to his lecture room. Halfway to the building, he suddenly remembered something.

"'Hang it!' he said. 'I've forgotten my watch.'

"Then he put his hand in his pocket, and pulled the watch out to see what the time was.

"'Hurrah!' he said, 'it's only ten past nine. I've got time to go home and get it!'"

Hereditary

It was Annual Prize Day at his school, and Willie Smith stood up to give his recitation.

"Friends, Romans, countrymen," he declaimed, "lend me your ears."

"There," said Mrs. Naggs to her neighbor, in a loud whisper, "that's Mrs. Smith's boy. He wouldn't be his mother's son if he didn't borrow something."

Luck for Him

Some workmen were fixing up electric wires in a school. A small boy who happened to be passing asked one of the men what they were doing.

"Fixing up a new electric switch," was the reply.

"Then thank goodness we're leaving this neighborhood, and I'm going to another school."

Think of It!

First Student—I wonder how old the Latin professor is?

Second Student—Quite old, I imagine. They say he used to teach Caesar.—Denison Flamingo.

Shamey

Teacher—Did you make that face at me?

Jimmie—No, ma'am. You just happened to walk in front of it.—Answers.

Study Room Teacher—Class, where does your spelling lesson for today begin and end?

Tony—From ignorance to ivory—Page 6.

In discussing battles of the Revolutionary War, a teacher at Newark asked the location of Princeton. The correct answer was given. When the teacher wanted to know what famous person lived there, Amando Mazzi said, "My mother lived there."

Little Mary was late for class, which caused the teacher to ask her excuse.

"Please, I stopped to see the devil's funeral."

"What funeral!" exclaimed the astonished teacher.

"Yes'm the devil's. A man who was there said, 'The poor devil! Sick only two days.'"—Fliegende Blaetter.

Knew Dad!

The teacher was instructing the class in the proper use of the word "give." She said to Dorothy:

"If I should ask your father for a dollar and he was willing that I should have it, what would he do?"

Dorothy: "He'd ask mother."

Teacher—If there were five mosquitoes on my hand and I killed two, how many would remain?

Gracie—The two dead ones, ma'am!—Ex.

RECENT PUBLICATIONS FOR BUYERS

Catalog of Drinking Fountains and Bubbling Cups. The Rundle-Spence Mfg. Co., of Milwaukee, Wis., has issued its new Catalog F, describing and illustrating its sanitary drinking fountains and bubbling cups.

The Rundle-Spence drinking fountains are of the slant stream character, which is considered an improvement over the old-style vertical stream. There is also the non-squirting advantage, as the nozzle is located at the bottom or recess and is so designed that water cannot be thrown outside the bowl. All the fountains have extra vitreous china bowls, glazed inside and outside, and are of a thickness to withstand ordinary abuse.

The catalog lists bubbling heads with spouts, brass pressure regulating heads, gravity bubblers, vertico-slant stream drinking heads, wall-bracket slant stream heads, push button, self-closing types, bubbling head for self-closing four-arm stop and push button stop with spout for individual cup, concealed wall-hanger type with lever handle, ball-bearing, self-closing stop, also wall type with cast iron painted back plate for fastening to wall. The firm also manufactures sanitary water coolers and pedestal fountains for playground and outdoor purposes.

BUYERS NEWS

GRAPH SCHOOL REPORTS

The use of graphs and charts has become so common in the handling of school statistics that we have often wondered why teachers do not apply the principles of graphic analysis to pupils' reports. It has remained for an Indiana teacher, Mr. James N. Goble, Greenfield, Indiana, to work out a splendid series of school reports in which the principle of the graph is effectively used. Four types of reports have been prepared and are now available:

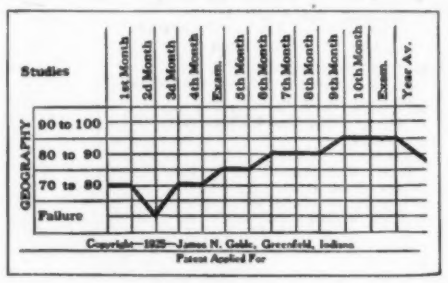
No. 1 provides space for one school year or two semesters, and allows for reports on twelve studies. A special space provides for recording tardiness and absence, and a page is devoted to the recording of the pupil's attitude toward school work.

No. 2 is similar to report No. 1, except that monthly grades are recorded in place of grades given for six weeks' periods.

Report No. 3 is a condensed blank similar to No. 1, except that it provides definite space for eight fundamental subjects and two unnamed subjects.

Report No. 4 is similar to No. 3, except that it is arranged for monthly instead of six weeks' periods.

The accompanying illustration shows how simple it is to make the records. The teacher simply draws a heavy black line representing



THE VISUAL SCHOOL REPORT.

the pupil's grade for each month and the parent can quickly see whether the child is making satisfactory progress and whether the report shows an improvement or a decline in each subject.

Samples and full information of the Visual School Reports may be had from Mr. Goble or from the Visual School Report Company, Greenfield, Indiana.

Furniture for the Library. A catalog has been issued by Leonard Peterson & Co., Inc., which is more than a mere array of pictures. It contains an illuminating discussion of the function and planning of a school library, describing location, size, layout, lighting, heating, and equipment.

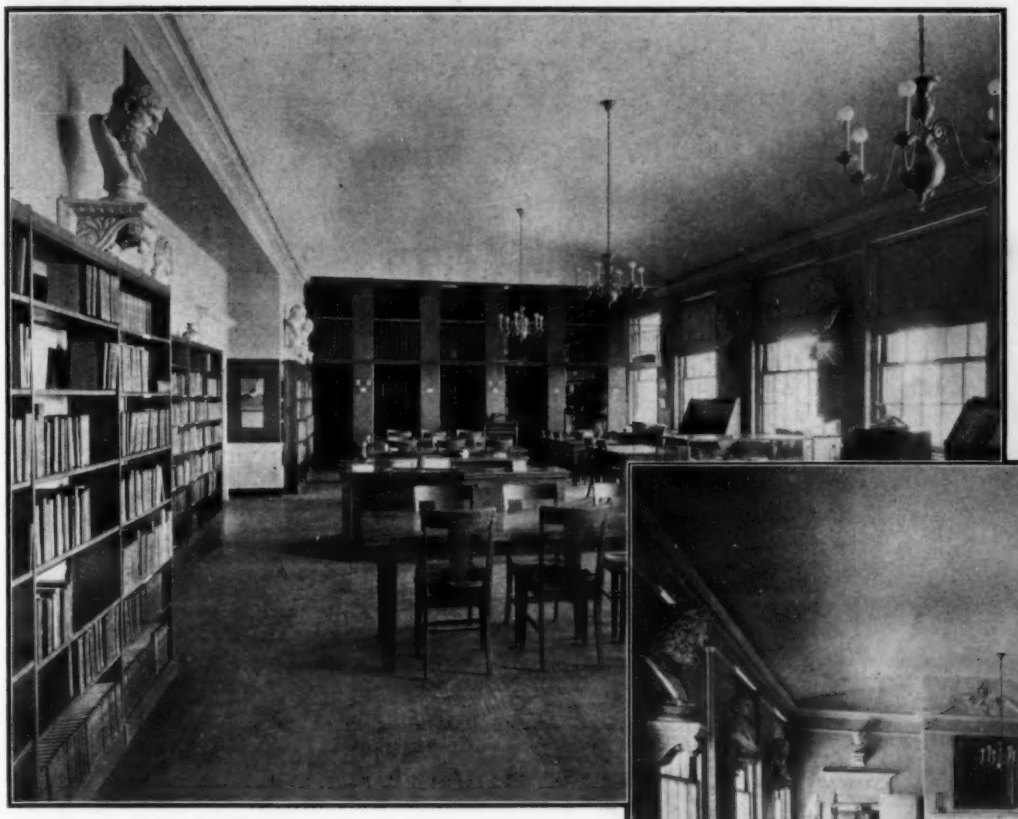
The furniture, which is simple in design and practical in purpose, is well illustrated. There are several kinds of shelving, bookcases, insert sections, magazine racks, filing cases, book racks, newspaper racks, dictionary stands, reading tables, and library chairs. A series of desks specially suited for library work is also presented; also various types of sectional filing cases. Every article of library equipment is accompanied with descriptive material as to size and definite use.

The office and factory of the Leonard Peterson Company are located at 1222-1234 Fullerton Avenue, Chicago, Ill.

Truscon Steel Roofs. The Truscon Steel Co., of Youngstown, O., has issued a new pamphlet illustrating and describing Truscon steel roofs for schools, public buildings and shops and factories. The Truscon roofs are formed and fabricated from copper-bearing sheet steel and assure maximum strength, minimum deflection, and minimum weight for carrying capacities required for live loads. They have the advantages of lightness in weight, incombustibility, minimum of expansion and contractions, free insulation, adaptability, durability, and low final cost.

The pamphlet describes the material and the method of erection and offers specifications for erecting Truscon insulated and waterproofed types. Information concerning the Truscon roofing material may be obtained by writing to the firm at Youngstown, O.

The New Library of Our Oldest School



Completely Equipped by Library Bureau

McLaughlin & Burr, *Architects* Helen M. Burgess, *Librarian*

The Library, Boston Public Latin School. Completely equipped by Library Bureau. Capacity 32,000 volumes. Equipment includes Library Bureau desks, chairs, tables, museum cases, unit wood shelving, and steel book stacks.

FOUNDED in 1635 and to this day a leader in classical secondary education, the famous Boston Public Latin School is also represented in the front rank of school libraries.

In the new school building, the library is housed in a room that is attractive and dignified. Its furniture and technical equipment is by Library Bureau.

To such an institution as the Boston Latin School, the selection of Library Bureau Equipment, and consultation with Library Bureau upon library matters, was the natural procedure.

Experienced librarians, school authorities, and architects know that Library Bureau is reliable beyond question for technical equipment that is of real aid in the control of library routine and for furniture and equipment that is artistic and permanent.

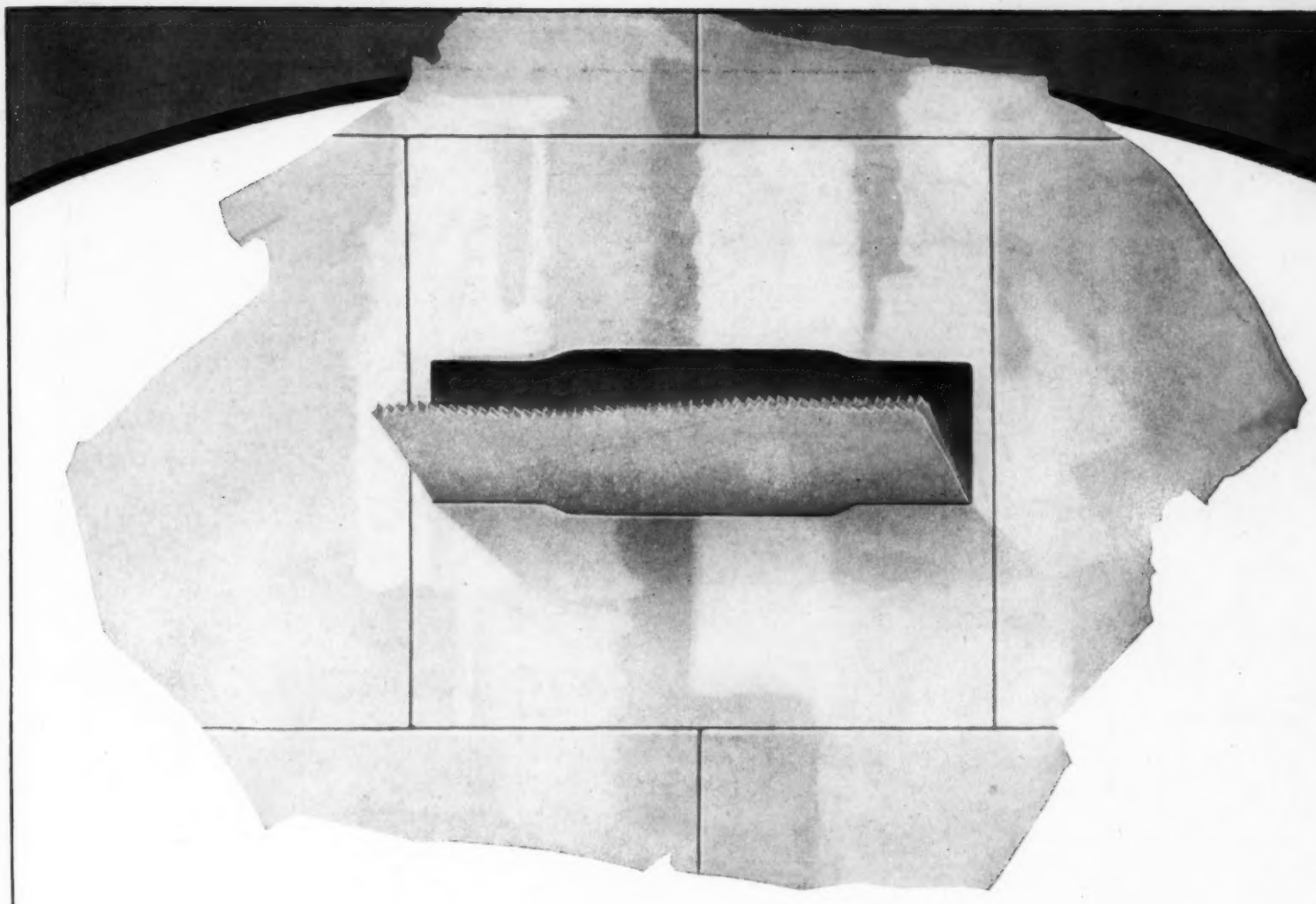
Because of its unequalled experience Library Bureau is able to give greater value. Whenever a Library Bureau price is higher in first cost it repays that difference many times in longer life.

If you have before you any question of library equipment, Library Bureau is willing that you should share the benefit of its experience. Your questions will have prompt attention. Address them to the Library Division, 118 Federal St., Boston, Mass., 380 Broadway, New York City, or 214 West Monroe Street, Chicago, Ill. Pacific Coast Distributors, McKee & Wentworth, 759 So. Los Angeles St., Los Angeles, Calif., 39 Second St., San Francisco, Calif., or 447 Dexter Horton Bldg., Third Ave. and Cherry St., Seattle, Washington.

Library Bureau

Division: RAND KARDEX BUREAU

RAND KARDEX LIBRARY BUREAU SAFE-CABINET GLOBE-WERNICKE



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